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# (54) SYNCHRONIZATION METHOD FOR DATA, ACCOUNTING PROCESSOR, ACCOUNTING PROCESSING SYSTEM AND RECORDING MEDIUM FOR SYNCHRONIZATION PROCESSING PROGRAM OF ACCOUNTING DATA

#### (57)Abstract:

PROBLEM TO BE SOLVED: To provide the synchronization method of data, an accounting processor and an accounting processing system capable of synchronizing the results of data fluctuation performed off-line between computer systems (accounting processors) installed in a consulting party and an accounting office at an optional timing without an exclusive processing at the time of connection by a communication network.

SOLUTION: Latest updating dates are compared for the respective files of the same kind stored in the computer systems 1 and 2 of the accounting office and the consulting party, an updating file is synchronized with a synchronization destination based on priority decided based on an updating data amount for the file of the different latest updating date and the file of the synchronization destination is updated. Also, after the synchronization destination file is updated, balance updating is performed, the result is synchronized with a synchronization origin and a synchronization origin file is updated.



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#### **CLAIMS**

### [Claim(s)]

[Claim 1] The 1st computer apparatus which memorized the same data as the data memorized by the 2nd computer apparatus according to the 2nd computer apparatus, In the computer system which consists of two or more 2nd computer apparatus in which data transfer is possible through this 1st computer apparatus and a communication network If there are [ taking the synchronization with the data memorized by one of the arbitration of said 2nd computer apparatus at said 1st computer apparatus, and ] synchronous directions The 2nd renewal condition of data memorized by the 2nd computer apparatus with said synchronous directions, The updating condition of the 1st data corresponding to said 2nd data memorized by said 1st computer apparatus is compared. The synchronous approach of the data characterized by updating said the 2nd data and 1st data mutually through said communication network, and making the same the contents of said 2nd data, and the contents of said 1st data based on this comparison result.

[Claim 2] The number of updating data of the 2nd data memorized by the 2nd computer apparatus which the updating condition of said data was expressed with the number of updating data, and had said synchronous directions, The number of updating data of the 1st data corresponding to said 2nd data memorized by said 1st computer apparatus is compared. When there are few updating data of said 2nd data than said 1st number of updating data Transmit said 2nd data to said 1st computer apparatus through said communication network, and said 1st data is updated by the updating data of said 2nd data. When there are few updating data of said 1st data than said 2nd number of updating data Transmit said 1st data to said 2nd computer apparatus through said communication network, and said 2nd data is updated by the updating data of said 1st data. The synchronous approach of the data according to claim 1 characterized by making the same the contents of said 2nd data, and the contents of said 1st data.

[Claim 3] After said comparison, it is further based on the line speed of said communication network. When the number of updated data in said 2nd data is said below 1st number of updating data, transmit the updated data in said 2nd data to said 1st computer apparatus, and said 1st data is updated. The synchronous approach of the data according to claim 1 or 2 characterized by transmitting the updated data in said 1st data to said 2nd computer apparatus, and updating said 2nd data when the number of updated data in said 1st data is below the number of updated data in said 2nd data.

[Claim 4] The 1st computer apparatus which was equipped with the accounting function and the communications control function, and memorized two or more accounting files according to 2nd computer apparatus, It is the synchronous approach of the data in the accounting system which consists of two or more 2nd computer apparatus in which data transfer is possible through this 1st computer apparatus and a communication network. If there are [ taking the synchronization with the accounting file memorized by said 1st computer apparatus in the equipment of the arbitration of said two or more 2nd computer apparatus, and ] synchronous directions The update information of the 2nd accounting file updated by accounting entry-of-data processing in two or more accounting files memorized by equipment with said synchronous directions, The update information of the 1st accounting file corresponding to said 2nd updated file is compared in two or more accounting files for the 2nd computer apparatus with said synchronous directions memorized by said 1st computer apparatus. The synchronous approach of the data characterized by updating the contents of said 2nd

accounting file, and the contents of the 1st accounting file mutually through said communication network based on said comparison result, and making the same the contents of said 1st accounting file, and the contents of said 2nd accounting file.

[Claim 5] Said synchronous directions are the synchronous approaches of the data according to claim 4 characterized by being made by hand control in the equipment of the arbitration of said 1st computer apparatus or said two or more 2nd computer apparatus.

[Claim 6] Said comparison To said 1st computer apparatus The newest update information of each accounting file memorized To this 1st computer apparatus To said 2nd computer apparatus memorized A comparison result with the last update information of two or more corresponding accounting files And the thing to perform based on a comparison result with the file updating information which consists of the last update information of the multiple files memorized by the newest update information and this 2nd computer apparatus of each accounting file memorized by said 2nd computer apparatus The synchronous approach of the data according to claim 4 or 5 by which it is characterized.

[Claim 7] The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through said communication network based on said comparison result Transmit the updated record in the accounting file concerned to the equipment side which has the high accounting file of a priority when said 2nd accounting file and the 1st accounting file are updated for both sides from the equipment which has the low accounting file of a priority, and it merges with the high accounting file of the above-mentioned priority. It carries out by transmitting the accounting file after merge to the equipment which has the low accounting file of the above-mentioned priority, and memorizing to the low file of the above-mentioned priority. Carry out by memorizing to the low file of a priority which transmits and corresponds to the equipment side which has the low file of a priority from the equipment which has the high accounting file of a priority when only one side of said 2nd file and 1st file is updated. The synchronous approach of data given in claim 4 characterized by things thru/or any 1 term of 6.

[Claim 8] Said priority is the synchronous approach of data given in claim 4 characterized by making high the direction with many [ each / of the file for a synchronization ] non-synchronized update record thru/or any 1 term of 7.

[Claim 9] Said priority is the synchronous approach of the data according to claim 6 characterized by the ability to change.

[Claim 10] The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through said communication network based on said comparison result The number of updating data of said 2nd accounting file is compared with the number of updating data of said 1st accounting file. When the number of updated data of said 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of said 2nd accounting file to said 1st computer apparatus through said communication network, and said 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to said 2nd computer apparatus through said communication network, and memorizing to said 2nd accounting file. When the number of updated data of said 1st accounting file is below the number of updated data of said 2nd accounting file Transmit the updated data of said 1st accounting file to said 2nd computer apparatus through said communication network, and said 2nd accounting file is merged by these updated data. The synchronous approach of data given in claim 4 characterized by what is performed by transmitting the accounting file of merge to said 1st computer apparatus through said communication network, and memorizing to said 1st accounting file thru/or any 1 term of 6

[Claim 11] The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through said communication network based on said comparison result It is based on the line speed of said communication network. The number of updating data of said 2nd accounting file, Compare the number of updating data of said 1st accounting file, and when the number of updated data of said 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of said 2nd accounting file to said 1st computer apparatus through said communication network, and said 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to said 2nd computer apparatus through said communication network, and memorizing to said 2nd accounting file. When the number of

updated data of said 1st accounting file is below the number of updated data of said 2nd accounting file Transmit the updated data of said 1st accounting file to said 2nd computer apparatus through said communication network, and said 2nd accounting file is merged by these updated data. The synchronous approach of data given in claim 4 characterized by what is performed by transmitting the accounting file of merge to said 1st computer apparatus through said communication network, and memorizing to said 1st accounting file thru/or any 1 term of 6.

[Claim 12] An accounting file memory means to memorize two or more accounting files according to two or more adviser points, An accounting file updating means to update the accounting file corresponding to the above-mentioned adviser point data among the accounting files according to adviser point memorized by said accounting file with the correction data of the adviser point data inputted by the data input means and this data input means, An update information file-generating means to generate the update information file of the accounting file updated by said accounting file updating means in the accounting file memorized by said accounting file memory means according to the adviser point, A communications control means to perform communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network, A transceiver means to deliver and receive the accounting equipment and accounting data of the adviser point under the communications control by this communications control means, When the synchronous initiation directions by synchronous directions means to perform synchronous processing initiation directions of accounting data to desired adviser point accounting equipment, and this synchronous directions \*\*\*\*\* are made, Auditing accounting equipment characterized by having a synchronous indication signal transmitting means to transmit a synchronous initiation indication signal to the adviser point accountant's office which had directions through said communication network.

[Claim 13] An accounting file memory means to memorize two or more accounting files, and a data input means, An update file storage means to memorize the new accounting data and correction accounting data which were inputted by this data input means, An update information file-generating means to generate the update information file of the file updated by the new input or correction input of accounting data in the file memorized by the accounting file memory means and the update file storage means, A communications control means to perform communications control for delivering and receiving external accounting equipment and data through a communication network, A transceiver means to deliver and receive said external accounting equipment and data under the communications control by this communications control means, If synchronous processing initiation directions are made by a synchronous directions means to perform synchronous processing initiation directions of accounting data, and this synchronous directions \*\*\*\*\*\* It is based on the comparison result of the update information file generated by said update information file-generating means, and the update information file generated by said external accounting equipment side. A transceiver file decision means to determine the file for a synchronization which transmits to said external accounting equipment out of the updated file in the file memorized by said accounting file memory means and the update file storage means, and the file for a synchronization which receives from this external accounting equipment, Accounting equipment characterized by having the accounting data synchronousr-control means which minds said communication network, transmits or receives the file for a synchronization determined by this transceiver file decision means between said external accounting equipment, and processes accounting data synchronously.

[Claim 14] It has a priority selection decision means determined by said transceiver file decision means to choose and determine a priority based on the number of updating data for every file. Said accounting data synchronousr-control means Accounting equipment according to claim 13 characterized by determining whether to receive the file determined by said transceiver file decision means from whether it transmits to external accounting equipment based on the priority determined by said priority selection decision means, and external accounting equipment.

[Claim 15] Accounting equipment according to claim 9 characterized by having the input screen as which the icon for synchronous directions or the mark was displayed.

[Claim 16] In the accounting system which consists of auditing accounting equipment in which data transfer is possible, and two or more adviser point accounting equipments through a communication network said auditing accounting equipment The 1st accounting file memory means which memorizes two or more accounting files according to two or more adviser points, An accounting file

updating means to update the accounting file corresponding to the above-mentioned adviser point data among the accounting files according to adviser point memorized by said accounting file with the correction data of the adviser point data inputted by the data input means and this data input means, The 1st update information file-generating means which generates the update information file of the accounting file updated by said accounting file updating means in the accounting file memorized by said accounting file memory means according to the adviser point, The 1st communications control means which performs communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network, It has the 1st transceiver means which delivers and receives adviser point accounting equipment and accounting data through said communication network under the communications control by this communications control means. Said two or more adviser point accounting equipments The 2nd accounting file memory means which memorizes two or more accounting files, respectively, The 2nd data input means and an updating data storage means to memorize the new accounting data and correction accounting data which were inputted by this 2nd data input means, The 2nd update information file-generating means which generates the update information file of the file memorized by said the 2nd accounting file memory means and updating data storage means, The 2nd communications control means which performs communications control for delivering and receiving said auditing accounting equipment and accounting data through a communication network, The 2nd transceiver means which delivers and receives said auditing accounting equipment and accounting data through said communication network under the communications control by this 2nd communications control means, If there are synchronous processing initiation directions by synchronous directions means for the adviser points to perform synchronous processing initiation directions of accounting data, and this synchronous directions \*\*\*\*\* for the adviser points It is based on the comparison result of the update information file generated by said 2nd update information file-generating means, and the update information file generated by said 1st update information file-generating means. The file for a synchronization which transmits to said auditing accounting equipment out of the updated file in the file memorized by said 1st accounting file memory means, the 2nd accounting file memory means, and the update file storage means, A transceiver file decision means to determine the file for a synchronization which receives from this auditing accounting equipment, The accounting data synchronousr-control means which minds a communication network, transmits or receives the file for a synchronization determined by this transceiver file decision means between said auditing accounting equipment, and processes accounting data synchronously, A preparation and the adviser point accounting equipment with which said synchronous directions were performed Start synchronous processing by the accounting data synchronousr-control means, and transmit and receive the file for a synchronization determined by said transceiver file decision means between the 1st accounting equipment through said communication network with said accounting data synchronousr-control means, and it is updated mutually. The accounting system characterized by making in agreement the contents of the accounting file memorized by the contents of the accounting file of the adviser point concerned memorized by said 1st accounting equipment, and the adviser point accounting equipment concerned.

[Claim 17] When the synchronous initiation directions by synchronous directions means by which said auditing accounting equipment performs synchronous processing initiation directions of accounting data to desired adviser point accounting equipment, and this synchronous directions \*\*\*\*\*\* are made, It has a synchronous indication signal transmitting means to transmit a synchronous initiation indication signal to the adviser point accounting equipment which had directions through said communication network. Said adviser point accounting equipment The accounting system according to claim 12 which will be characterized by starting synchronous processing of the accounting data based on said accounting data synchronousr-control means if said synchronous indication signal is received from auditing accounting equipment in the first half or there are synchronous processing initiation directions of the accounting data based on said synchronous directions means for the adviser points.

[Claim 18] It is the record medium which recorded the synchronous processing program of the accounting data in the accounting system which consists of auditing accounting equipment in which data transfer is possible, and two or more adviser point accounting equipments through a

communication network. When the synchronous directions with the accounting file of the adviser point concerned memorized by said auditing accounting equipment in said adviser point accounting equipment are detected, The update information of the file updated by the new input or correction input of accounting data in the file memorized by said adviser point accounting equipment, The update information of two or more of said accounting files for adviser point accounting equipments memorized by said auditing accounting equipment is compared. The contents of the accounting file for the adviser points concerned memorized by the contents and said auditing accounting equipment of the accounting file memorized by said adviser point accounting equipment based on said comparison result are mutually transmitted, received and updated through said communication network. The record medium characterized by recording the synchronous processing processing program of the accounting data constituted so that the contents of the accounting file for the adviser points concerned memorized by the contents and said auditing accounting equipment of the accounting file memorized by said adviser point accounting equipment might be made in agreement.

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# **DETAILED DESCRIPTION**

# [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the synchronous processing technique for maintaining the adjustment of the accounting data at the time of performing an accounting entry of data, correction, etc. about an accounting technique on one side or the both sides of a computer apparatus (terminal of accounting equipment, a personal computer, a workstation, etc., etc.) which had the accounting function etc. through the communication network especially.

[Description of the Prior Art] Between an accountant's office, its adviser point (the individual or company which entrusted instruction in connection with accounting or accounting by the contract with an accountant's office is said), or this - branch (office) () of a nonfinancial company or as an approach of exchanging accounting data in the section for accounting and other sections (for example, operating section) in a company, and holding accounting \*\* Use as transaction data the accounting data inputted with computer apparatus (client computer), such as the adviser point or a branch (office), on-line (or in-line) using the communication line. There is the approach of transmitting to the pin center, large computer apparatus with which an accountant's office and the head office (or Accounts and Finance Department gate) were equipped through a permanent communication circuit or the Internet. By this approach, the accounting file which processed the transaction data received by the pin center, large computer apparatus (server computer) side, and was prepared in the pin center, large computer apparatus side is updated, and accounting is held. [0003] However, although it is suitable in this approach's performing the centralized control by online using a dedicated line and a large-sized pin center, large computer in a large-scale accountant's office and the large-scale big business and holding accounting The accountant's office which executes small-scale accounting by proxy to serve also as the consultant to the adviser point which consists of an individual or a small company, Since it is not the accounting method for which it was suitable for the company without the merit to which the yield of accounting data performs accounting by online few \*\* There is a method of transmitting the accounting data within a certain period (a day, a week, moon) inputted at the adviser point or a branch through a communication network to an accountant's office or the head office as the transfer approach of the accounting data suitable for the accountant's office and company like the latter. By this approach, the transmitted accounting data can be processed in an accountant's office or the head office, an accounting file can be updated, and accounting can be held.

[0004] However, by the transfer approach of the accounting data of the aforementioned \*\*, it is the adviser point (). Or the timing which performs an accounting entry of data and correction in a branch or a section (it is only hereafter described as the adviser point) is a fixed time of setting at the arbitration or the adviser point within the above-mentioned period. The processing timing by the side of the accountant's office (or the head office or headquarters (it is only hereafter described as an accountant's office)) which processes the fluctuation data collectively sent from the adviser point for every above-mentioned period has the common case of not being in agreement. For this reason, the accounting file of the adviser point will differ from the contents of the accounting file for the adviser points concerned in an accountant's office.

[0005] Therefore, when each accounting file for the adviser points concerned of an accountant's

office side computer was updated by the fluctuation data collectively sent from the adviser point at an updating stage, the trouble of having become different contents from the case where fluctuation is not being added to the contents of each accounting file for the adviser points concerned at all from the updating stage last in an accountant's office to this updating stage had produced the contents of each [ these ] accounting file.

[0006] That is, if the contents of the accounting file of the last updating stage in the adviser point are set to C and the transaction file produced by the next updating stage is set to D, the contents of the accounting file of the adviser point updated by transaction-file D will serve as C'=C+D. Moreover, although the contents of the accounting file of the last updating stage in an accountant's office are also C, supposing the correction entry of data by audit processing of an accountant's office etc. will change by the next updating stage, the contents of the accounting master file for the adviser points concerned will serve as C"=C+s. Although a changed part of the accounting file of the adviser point is D when this accounting master file C" is updated by the fluctuation data D, a changed part by the side of an accountant's office may become s+D, and a changed part which must be essentially in agreement in the adviser point and an accountant's office (synchronization) may become an inequality (asynchronous) by processing timing.

[0007] In order to make in agreement the synchronization of the above-mentioned trouble, i.e., accounting data, an operational moon is conventionally constituted from the adviser point and an accountant's office possible [a lock (protection)]. As delivery and the accounting data of other periods(Mon.) could not input the accounting data (data with "input good [for example,]" in a specific moon unit) of a specific period into the other party at the time of the data communication for accounting data transfer and the accounting data of a specific period were compounded, renewal of data was realized. Moreover, he is trying for an exclusive operation to maintain the adjustment of a synchronous file for the file by which unitary management is carried out in a loose-coupling multi-host configuration system at JP,9-62556,A with the technique of an indication. moreover, "the record concerned contained in this master file copying to a distributed record in the distributed processing system holding the distributed file which copied the master file which a host computer manages, when starting business using that distributed file and the record contained in that distributed file is old than the record with which the master file which a host computer manages corresponds" with the technique of the indication to JP,5-298173,A -- it makes like.

[0008] moreover, with the technique of an indication, to JP,11-161727,A "-- two or more distributed local machine computers make online connection through a host machine and a communication line -- having -- the local machine of these plurality -- the time -- the object for machines, while having a master file In the master motive management method of the reservation managerial system with which a host machine is equipped with each master file of a local machine, and the master file which is common in the contents, and changes It has the managed table on which two or more of said local machines and said host machines contain the status flag which manages the condition of each one of master files, respectively. in order to take the synchronization of the master file between said local machines and said host machines, in case file transmission of the updating data is carried out, the status flag which reflected the current condition of a self-machine in the partner machine is transmitted" -- it is made like.

[0009]

[Problem(s) to be Solved by the Invention] However, since there is a side which does different activities, such as "audit", "accounting", and "correction", by the accounting method of the abovementioned \*\* the side which performs "input" of accounting data and "correction" (additional correction, deletion) Since both accounting files serve as a version (version) from which the contents differ, by the method constituted from the adviser point and the accountant's office of the abovementioned former possible [a lock (protection)], an operational moon The accounting entry of data in the adviser point, an accountant's office, etc., There was a trouble that there was much constraint of the procedure of management, the procedure in the case of data transfer, especially the procedure at the time of a reply, and it was complicated. This had the trouble that it could become a serious failure in the adviser point and an accountant's office in the common use and the data exchange of accounting data by the Internet (or intranet in a company).

[0010] In addition, the technique of the indication to JP,5-298173,A is the same at the technique

which maintains the synchronization of the conventional specific accounting data mentioned above, and the point of "performing an exclusive operation" (that is, both perform a specific file and processing and other files are in agreement at the point to eliminate). Therefore, when there are a file of a configuration of differing in an accountant's office (host computer) an adviser point (distributed system) side like the accounting method of the above-mentioned \*\* and a different file of a version, addition / correction result of data cannot be synchronized about those files.

[0011] Moreover, the technique of the indication to JP,5-298173,A is a technique of updating the contents of the distributed file by the newest contents before distributed file use, and performing the file of the same version by the side of a host computer and a distributed system (version) by synchronous processing of the uni directional to the computer which constitutes a distributed system from a host computer. Therefore, when there are a file of a configuration of differing in an accountant's office (host computer) an adviser point (distributed system) side and a different file of a version like the accounting method of the above-mentioned \*\*, addition / correction result of data cannot be synchronized about those files. Moreover, renewal (additional correction) of the bidirectional data of an adviser point computer (distributed system) and an accountant's office (host computer) cannot be processed synchronously.

[0012] Moreover, the technique of the indication to JP,11-161727,A A status flag performs file management when the ability not to carry out renewal of online. The accounting method of \*\* which is the technique made identifiable and mentioned the changed file above (that is,) It transmits to the pin center, large computer apparatus with which an accountant's office and the head office were equipped through the permanent communication circuit or the public line network by using as transaction data the accounting data inputted with the computer apparatus distributed by the adviser point or the branch on-line using the communication line. Although it is applicable to the accounting method which performs renewal of data It has this technique, when a status flag performs file management when the ability not to carry out renewal of online in emergency in the system which originally requires the retrieval and updating of data real time like a reservation managerial system, and a status flag is cleared after renewal of online. Therefore, the technique of an indication does not require a sex so much instancy like an accounting data process, and is not suitable for the synchronization of the file in a system which an update process of each file by updating data repeats to predetermined timing. Therefore, like the accounting method of above-mentioned \*\*, renewal of data cannot be performed usually in mutually-independent (that is, off-line), and it cannot apply to the system which synchronizes an accounting file at the time of transfer of data in the adviser point and an accountant's office.

[0013] moreover -- the Internet accounting method developed in recent years -- the forward misjudgment of received data -- although reception of commo data must be immediately performed in order to notify against a law, if each accounting file does not synchronize -- the forward misjudgment of data -- there is a trouble that a law is not made immediately. That is, since there is no other way but conventional to lock take (exclusive operation) when it is going to hold the accounting method of the above-mentioned \*\* using the Internet, there is a trouble that constraint of the trouble in the case of the above-mentioned conventional lock method, i.e., the procedure in the case of data transfer, and the procedure at the time of a reply becomes and complicated.

[0014] Moreover, according to the patent application (Japanese Patent Application No. 11-232649) on August 19 (August 19, 1999), Heisei 11 by the applicant of this application patent Although an accountant's office and the adviser point (or between between this - branch, a host computer, and a client computer) can perform easily transfer of accounting data, and verification of accounting data which received by easy actuation as shown in <u>drawing 19</u> If it can process synchronously at any time in an adviser drawer back or an accountant's office, furthermore, after transmission of data, Without waiting for the reply from a phase hand, updating (additional correction) processing can be performed to a mutual formal file, and it can expect to enable input / correction activity to the original timing of the adviser point or an accountant's office.

[0015] This invention is made in view of the trouble and technical problem of an accounting method of the above-mentioned \*\*, and aims at the synchronous approach of data that the data fluctuation result performed off-line between the computer apparatus (accounting equipment) installed in the adviser point and an accountant's office may be synchronized without an exclusive operation to the

timing of arbitration at the time of connection by the communication network, the synchronous approach of data, accounting equipment, and an accounting system distribution.
[0016]

[Means for Solving the Problem] In order to solve the above-mentioned technical problem, the synchronous approach of the data the 1st invention The 1st computer apparatus which memorized the same data as the data memorized by the 2nd computer according to the 2nd computer, In the computer system which consists of two or more 2nd computer apparatus in which data transfer is possible through this 1st computer apparatus and a communication network If there are [ taking the synchronization with the data memorized by one of the arbitration of the 2nd computer apparatus at the 1st computer apparatus, and ] synchronous directions The 2nd data memorized by the 2nd computer apparatus with synchronous directions, The updating condition of the 1st data corresponding to the 2nd data memorized by the 1st computer apparatus is compared. Based on this comparison result, the 2nd data and 1st data are mutually updated through said communication network, and it is characterized by making the same the contents of the 2nd data, and the contents of the 1st data.

[0017] Moreover, the number of updating data of the 2nd data memorized by the 2nd computer apparatus with which the updating condition of data was expressed with the number of updating data, and the 2nd invention had synchronous directions in the synchronous approach of the data invention the above 1st, The number of updating data of the 1st data corresponding to said 2nd data memorized by said 1st computer apparatus is compared. When there are few updating data of the 2nd data than the 1st number of updating data Transmit the 2nd data to the 1st computer apparatus through a communication network, and the 1st data is updated by the updating data of the 2nd data. When there are few updating data of the 1st data than said 2nd number of updating data The 1st data is transmitted to the 2nd computer apparatus through a communication network, the 2nd data is updated by the updating data of the 1st data, and it is characterized by making the same the contents of the 2nd data, and the contents of the 1st data.

[0018] Moreover, it is characterized by determining whether the 3rd invention transmits the 2nd data to the 1st computer apparatus further after a comparison in the synchronous approach of the data the above 1st or the 2nd invention based on the line speed of a communication network, or the 1st data is transmitted to the 2nd computer apparatus.

[0019] Moreover, the 1st computer apparatus which the synchronous approach of the data the 4th invention was equipped with the accounting function and the communications control function, and memorized two or more accounting files according to 2nd computer apparatus, It is the synchronous approach of the data in the accounting system which consists of two or more 2nd computer apparatus in which data transfer is possible through this 1st computer apparatus and a communication network. If there are [ taking the synchronization with the accounting file memorized by the 1st computer apparatus in the equipment of the arbitration of two or more 2nd computer apparatus, and ] synchronous directions The update information of the 2nd accounting file updated by accounting entry-of-data processing in two or more accounting files memorized by equipment with synchronous directions, The update information of the 1st accounting file corresponding to the 2nd file updated in two or more accounting files for the 2nd computer apparatus with the synchronous directions memorized by the 1st computer apparatus is compared. Based on a comparison result, the contents of the 2nd accounting file and the contents of the 1st accounting file are mutually updated through a communication network, and it is characterized by making the same the contents of the 1st accounting file, and the contents of the 2nd accounting file.

[0020] Moreover, 5th invention is characterized by making synchronous directions by hand control in the equipment of the arbitration of the 1st computer apparatus or two or more 2nd computer apparatus in the synchronous approach of the data invention the above 4th.

[0021] The 6th invention is set to the synchronous approach of the data the above 4th or the 5th invention. Moreover, a comparison To the 1st computer apparatus The newest update information of each accounting file memorized To this 1st computer apparatus To the 2nd computer apparatus memorized A comparison result with the last update information of two or more corresponding accounting files And it is characterized by carrying out based on a comparison result with the file updating information which consists of the last update information of the multiple files memorized

by the newest update information and this 2nd computer apparatus of each accounting file

memorized by the 2nd computer apparatus.

[0022] Moreover, the 7th invention is set to the synchronous approach of the data the above 4th thru/or the 6th one of invention. The renewal of mutual of the contents of the 2nd accounting file, and the contents of the 1st accounting file performed through a communication network based on a comparison result Transmit the updated record in the accounting file concerned to the equipment side which has the high accounting file of a priority when the 2nd accounting file and the 1st accounting file are updated for both sides from the equipment which has the low accounting file of a priority, and it merges with the high accounting file of the above-mentioned priority. It carries out by transmitting the accounting file after merge to the equipment which has the low accounting file of the above-mentioned priority, and memorizing to the low file of the above-mentioned priority. It is characterized by what is performed by memorizing to the low file of a priority which transmits and corresponds to the equipment side which has the low file of a priority from the equipment which has the high accounting file of a priority when only one side of the 2nd file and the 1st file is updated. [0023] Moreover, it is characterized by making high the direction with much [ to the nonsynchronized number of update record / a priority / each / of the file for a synchronization ] 8th invention in the synchronous approach of the data the above 4th thru/or the 7th one of invention. [0024] Moreover, 9th invention is characterized by the ability to change a priority in the synchronous approach of the data invention the above 8th.

[0025] Moreover, the 10th invention is set to the synchronous approach of the data the above 4th thru/or the 6th invention. The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through a communication network based on a comparison result The number of updating data of the 2nd accounting file is compared with the number of updating data of the 1st accounting file. When the number of updated data of the 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of the 2nd accounting file to the 1st computer apparatus through a communication network, and the 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to the 2nd computer apparatus through a communication network, and memorizing to the 2nd accounting file. When the number of updated data of the 1st accounting file is below the number of updated data of the 2nd accounting file Transmit the updated data of the 1st accounting file to the 2nd computer apparatus through a communication network, and the 2nd accounting file is merged by these updated data. It is characterized by what is performed by transmitting the accounting file after merge to the 1st computer apparatus through a communication network, and

memorizing to the 1st accounting file.

[0026] Moreover, the 11th invention is set to the synchronous approach of the data the above 4th thru/or the 6th invention. The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through a communication network based on a comparison result It is based on the line speed of a communication network. The number of updating data of the 2nd accounting file, Compare the number of updating data of the 1st accounting file, and when the number of updated data of the 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of the 2nd accounting file to the 1st computer apparatus through a communication network, and the 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to the 2nd computer apparatus through a communication network, and memorizing to the 2nd accounting file. When the number of updated data of the 1st accounting file is below the number of updated data of the 2nd accounting file Transmit the updated data of the 1st accounting file to the 2nd computer apparatus through a communication network, and the 2nd accounting file is merged by these updated data. It is characterized by what is performed by transmitting the accounting file after merge to the 1st computer apparatus through a communication network, and memorizing to the 1st accounting file. [0027] Moreover, the auditing accounting equipment of the 12th invention An accounting file memory means to memorize two or more accounting files according to two or more adviser points, An accounting file updating means to update the accounting file corresponding to the abovementioned adviser point data among the accounting files according to adviser point memorized by the accounting file with the updating data of the adviser point data inputted by the data input means

and this data input means, An update information file-generating means to generate the update information file of the accounting file updated by the accounting file updating means in the accounting file memorized by the accounting file memory means according to the adviser point, A communications control means to perform communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network, A transceiver means to deliver and receive the accounting equipment and accounting data of the adviser point under the communications control by this communications control means, desired adviser point accounting equipment -- synchronous processing initiation directions of accounting data -- \*\*\*\*\*, when the synchronous initiation directions by the synchronous directions means and this synchronous directions \*\*\*\*\* are made It is characterized by having a synchronous indication signal transmitting means to transmit a synchronous initiation indication signal to the adviser point accountant's office which had directions through said communication network. [0028] Moreover, an accounting file memory means by which the accounting equipment of the 13th invention memorizes two or more accounting files, A data input means and an update file storage means to memorize the new accounting data and updating accounting data which were inputted by this data input means, An update information file-generating means to generate the update information file of the file updated by the new input or updating input of accounting data in the file memorized by the accounting file memory means and the update file storage means, A communications control means to perform communications control for delivering and receiving external accounting equipment and data through a communication network, A transceiver means to deliver and receive external accounting equipment and data under the communications control by this communications control means, If synchronous processing initiation directions are made by a synchronous directions means to perform synchronous processing initiation directions of accounting data, and this synchronous directions \*\*\*\*\* It is based on the comparison result of the update information file generated by the update information file-generating means, and the update information file generated by the external accounting equipment side. A transceiver file decision means to determine the file for a synchronization which transmits to external accounting out of the updated file in the file memorized by the accounting file memory means and the update file storage means, and the file for a synchronization which receives from this external accounting equipment, A communication network is minded, the file for a synchronization determined by this transceiver file decision means is transmitted or received between external accounting equipment, and it is characterized by having the accounting data synchronousr-control means which processes accounting data synchronously.

[0029] Moreover, the 14th invention is equipped with a priority selection decision means determined by the transceiver file decision means to choose and determine a priority based on the number of updating data for every file, in the accounting equipment of invention of the above 13th. An accounting data synchronousr-control means is characterized by determining whether to receive the file determined by the transceiver file decision means from whether based on the priority determined by the priority selection decision means, it transmits to external accounting equipment, and external accounting equipment.

[0030] Moreover, 15th invention is characterized by having the input screen as which the icon for synchronous directions or the mark was displayed in the accounting equipment of invention of the above 13th.

[0031] Moreover, the accounting system of the 16th invention is set to the accounting system which consists of auditing accounting equipment in which data transfer is possible, and two or more adviser point accounting equipments through a communication network. 1st accounting file memory means by which auditing accounting equipment memorizes two or more accounting files according to two or more adviser points, An accounting file updating means to update the accounting file corresponding to the above-mentioned adviser point data among the accounting files according to adviser point memorized by the accounting file with the updating data of the adviser point data inputted by the data input means and this data input means, The 1st update information file-generating means which generates the update information file of the accounting file updated by said accounting file updating means in the accounting file memorized by the accounting file memory means according to the adviser point, The 1st communications control means which performs

communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network, It has the 1st transceiver means which delivers and receives adviser point accounting equipment and accounting data through a communication network under the communications control by this communications control means. Two or more adviser point accounting equipments The 2nd accounting file memory means which memorizes two or more accounting files, respectively, The 2nd data input means and an updating data storage means to memorize the new accounting data and updating accounting data which were inputted by this 2nd data input means, The 2nd update information file-generating means which generates the update information file of the file memorized by the 2nd accounting file memory means and updating data storage means, The 2nd communications control means which performs communications control for delivering and receiving auditing accounting equipment and accounting data through a communication network, The 2nd transceiver means which delivers and receives auditing accounting equipment and accounting data through said communication network under the communications control by this 2nd communications control means, If there are synchronous processing initiation directions by synchronous directions means for the adviser points to perform synchronous processing initiation directions of accounting data, and this synchronous directions \*\*\*\*\* for the adviser points It is based on the comparison result of the update information file generated by the 2nd update information file-generating means, and the update information file generated by the 1st update information file-generating means. The 1st accounting file memory means, A transceiver file decision means to determine the file for a synchronization which transmits to auditing accounting equipment out of the updated file in the file memorized by the 2nd accounting file memory means and update file storage means, and the file for a synchronization which receives from auditing accounting equipment, The accounting data synchronousr-control means which minds a communication network, transmits or receives the file for a synchronization determined by this transceiver file decision means between auditing accounting equipment, and processes accounting data synchronously, A preparation and the adviser point accounting equipment with which synchronous directions were performed Start synchronous processing by the accounting data synchronousr-control means, and transmit and receive the file for a synchronization determined by the transceiver file decision means between the 1st accounting equipment through a communication network with an accounting data synchronousr-control means, and it is updated mutually. It is characterized by making in agreement the contents of the accounting file memorized by the contents of the accounting file of the adviser point concerned memorized by the 1st accounting equipment, and the adviser point accounting equipment concerned.

[0032] The 13th invention is set to the accounting system of invention of the above 12th. Auditing accounting equipment When the synchronous initiation directions by synchronous directions means to perform synchronous processing initiation directions of accounting data to desired adviser point accounting equipment, and this synchronous directions \*\*\*\*\* are made, It has a synchronous indication signal transmitting means to transmit a synchronous initiation indication signal to the adviser point accounting equipment which had directions through said communication network. Adviser point accounting equipment If a synchronous indication signal is received from auditing accounting equipment or there are synchronous processing initiation directions of the accounting data based on the synchronous directions means for the adviser points, it will be characterized by starting synchronous processing of the accounting data based on said accounting data synchronousr-control means.

[0033]

[Embodiment of the Invention] [Outline of synchronous processing] drawing 1 is the outline explanatory view of the accounting system of this invention, and a sign 1 shows the computer apparatus (for example, an auditing computer apparatus (or auditing accounting equipment), a host computer, a host machine) equipped with the accounting function and communications control function with which the accountant's office (or its post of relation, such as the head office or a center) was equipped. Moreover, a sign 2 shows a computer apparatus (accounting equipment) client computer and a client machine equipped with the accounting function and communications control function with which the adviser points (or branch etc.) were equipped, and a sign 3 shows a communication network. Moreover, in drawing 1, on explanation, although only one computer

apparatus 2 was shown, according to the number of the adviser points, transfer of the accounting data of two or more sets of computer apparatus 2 is usually performed. Moreover, a communication network 3 can use various kinds of communication networks (LAN (a Local Area Network is also included)) besides the Internet.

[0034] By drawing 1, a computer apparatus 2 in the accounting data inputted by the person in charge of the adviser point The accounting data transmitted through the communication network 3 from the computer apparatus 1 are displayed based on a predetermined format (drawing 5, drawing 6). Pass the verification (check) by the person in charge to the displayed accounting data. The need is accepted as a result of verification, and it is correction actuation (an addition, correction, and deletion actuation are said) of accounting data. It is correction processing (an addition) of accounting data based on [ when (it is the same hereafter) is performed ] correction actuation. correction and deletion -- saying (hereafter the same) -- it carries out and the accounting data currently displayed that there are transmitting directions by the person in charge and the accounting data for a display are transmitted to a computer apparatus 1 through a communication network 3. Moreover, a computer apparatus 2 performs synchronous processing with an update file and an accounting file after a series of inputs of accounting data, and an update process, or at the stage of arbitration in this case (that is, each accounting files of each accounting file of a computer apparatus 2 and a computer apparatus 1 are synchronized). moreover, in the example, since the data synchronous directions by the person in charge of the adviser point perform activation timing of synchronous processing, input data and correction data which were made before it can be gather, and can be synchronize with a day with the sufficient convenience of the adviser point ( automatic -- every predetermined period -- or you may constitute so that it may be make to synchronize after a data input or data correction processing termination).

[0035] Moreover, the computer apparatus 1 has memorized the same multiple files as two or more accounting files of a computer apparatus 2 according to each computer apparatus 2. Moreover, if verification mode is chosen, the record (accounting data) memorized by the update file transmitted through the communication network 3 from the computer apparatus 2 will be edited, and a screen display will be carried out in a predetermined format. As a result of the verification (check) by the accountant's office (or head office) person in charge to whom it is carried out to the displayed accounting data, when correction actuation is performed, according to the contents of correction, correction processing of the correction accounting data of accounting data etc. is performed. [0036] Moreover, the file which recorded "the number of data of all the files that constitute the accounting data of a self-machine, and the updating hour entry" on the preservation memory of computer apparatus 1 and 2 after the above-mentioned synchronous processing activation (an update information file (drawing 12 (c)) is generated.) By having prepared this update information file, the newest update information of each file recorded on the update information file at the time of synchronous processing activation is compared with the newest update information of the update information recorded for every accounting file, and the transceiver candidate of a file unit can be determined (drawing 16).

[0037] Moreover, the priority of whether to transmit to a computer apparatus 2 previously from a computer apparatus 1 for every transceiver candidate is determined based on the amount of data updated by the newest refix date in each equipment. Moreover, a priority can also be changed by the amount of data or updating time amount.

[0038] Moreover, although synchronous processing is performed per regular file, when a transceiver candidate file overlaps, it processes synchronously not per file unit but per record (accounting data) (when updating according to the individual about a certain file on both sides like [ at the time of performing a correction input etc. by both the transmitting agency and the receiving radical ]). In this case, it is [ or / it merges whether it is merged by the priority (that is, it is determined by the transceiver priority of a file whether the record of a file 1 is merged into a file 2 between a file 1 and a file 2 or the record of a file 2 is merged into a file 1)]. What is necessary is just to change a priority by modification of a priority according to the amount of data or line speed, since a priority can be changed. Moreover, you may make it change automatically based on the amount of data or line speed. Moreover, only in merge, regardless of a priority, it can change [ which is merged as be alike with the amount of data and line speed / or or ] automatically whether merge is carried out.

[0039] Moreover, computer apparatus 1 and 2 carry out archival memory of the hysteresis concerning transmission and reception of accounting data, correction processing of correction, deletion, or an additional input process, and the registration to an accounting file to the hysteresis permanent file on each preservation memory.

[0040] Moreover, the accounting data to transmit are enciphered and it transmits, and after decoding computer apparatus 1 and 2 with a receiving-side computer apparatus, they can also be displayed on an input format (drawing 5, drawing 6) predetermined with the receiving-side computer apparatus. Moreover, the accounting data to transmit are compressed and it transmits, and computer apparatus 1 and 2 can also be displayed on a predetermined input format, after elongating with a receiving-side computer apparatus. Moreover, computer apparatus 1 and 2 may be made to perform authentication for security.

[0041] [Example of configuration of accounting equipment] (adviser point accounting equipment) drawing 2 is the block diagram showing the configuration of one example (adviser point accounting equipment (the 2nd computer apparatus)) of the computer apparatus which constitutes the accounting system of this invention, and accounting equipment 2 is equipped with the data input section 10, a control section 12, the activity memory 13, a display 14, the communications control section 15, a receive section 16, the transmitting section 17, the preservation memory 18, and the printout section (printer) 19. In addition, you may make it have the pointing device (for example, mouse) 11 of the data input section 10 which instead performs a function (directions (point) function) in part. Moreover, you may make it have OCR (optical character reader (not shown)) which reads accounting data optically, changes and carries out character recognition to an electrical signal, and obtains a character code.

[0042] The data input section 10 performs accounting data, a correction data input, a deletion directions input or a message input, etc. In addition, although the data input section 10 does not illustrate, it is equipped with the buffer for data inputs.

[0043] A control section 12 controls the synchronous processing program execution of the accounting data stored in program storing memory in the processor configuration which consists of circumference circuits, such as CPU, program storing memory, RAM, and a clock, while controlling actuation of nothing and the accounting equipment 2 whole, and performs synchronous processing of the accounting data of this invention. Moreover, execution control of the accounting application program (accounting data input processing is included) stored in program storing memory is performed. Moreover, program storing memory can store the format data for a display besides various programs, icon data, etc. (the storing memory which stores the format data for a display, icon data, etc. may be prepared independently).

[0044] For example, if a control section 12 has the synchronous directions by the person in charge, it will perform execution control of a series of synchronous processing by the synchronous processing program of accounting data based on this invention to the data for a synchronization (the update file which is not processed synchronously or its record, the accounting file which is not processed synchronously, or its record is said) memorized by the preservation memory 18.

[0045] Similarly, a control section 12 performs the backup process of an accounting file at the time of starting. Moreover, if the synchronous initiation indication signal sent from auditing accounting equipment 1 is received when auditing accounting equipment (the 1st computer apparatus) 1 is constituted so that synchronous directions can be performed so that it may mention later, the backup process of an accounting file will be performed.

[0046] Moreover, if a control section 12 has a data transmission control at the time of synchronous processing, it will take out the data for a synchronization from the preservation memory 18, and they will carry out storage control so that it may memorize to the transmitting data buffer 132. Moreover, in compressing the data for a synchronization etc. and transmitting, it controls a control section 12 to memorize the data for a synchronization which took out the data for a synchronization etc. from the preservation memory 18, and were compressed by the predetermined compression program to the transmitting data buffer 132. Moreover, in enciphering the data for a synchronization etc. and transmitting, it controls a control section 12 to memorize the data for a synchronization which took out the data for a synchronization etc. from the preservation memory 18, and were compressed by the predetermined encryption program to a transmission buffer 132.

[0047] Moreover, if the data for a synchronization based on synchronous processing are received from the auditing accounting equipment 1 side, storage control of the control section 12 will be carried out so that the received data for a synchronization may be memorized to a data buffer 131. Moreover, when the received data for a synchronization are compressed, execution control of the elongation of the compressed data based on an elongation program is carried out with the activity buffer 133, and storage control to the data buffers 131, such as elongated data for a synchronization, is performed. Moreover, when the data for a synchronization etc. are enciphered, the encryption data based on a decode program are decoded, and storage control to the data buffers 131, such as decoded data for a synchronization, is performed.

[0048] Moreover, as the activity memory 13 consists of volatile memory, such as DRAM, and it is shown in drawing 3 (a) It is transmitted from auditing accounting equipment 1 through the update files (journalizing file etc.) and communication network 3 which were obtained by data input processing. The data buffer 131 which memorizes the update file and display-control data which were picked out from the data by which reception was carried out, The transmitting data buffer 132 which memorizes temporarily the data (update file \*\*\*\*\*\*\*\*\*\* data) transmitted to an external device through a communication line 3, and the working-level month buffer 133 are securable. [0049] A display 14 displays the accounting data in the update file memorized by the data buffer 131 by the predetermined input format based on display-control data.

[0050] Moreover, the communications control section 15 consists of programs for communications controls, establishes the communications protocol specified in the communication network 3 to connect between auditing accounting equipment 1, and controls transfer of data through a communication network 3.

[0051] A receive section 16 is in confusion to the receive buffer which does not illustrate received data, and in the case of the data of the transmit data method as which received data are specified with the protocol of a communication network 3 like a packet, it is decomposed, it takes out accounting data etc., and it memorizes it to a data buffer 131.

[0052] The transmitting section 17 is taken out from a data buffer 131, and is incorporated to the transmission buffer (= receive buffer) which does not illustrate the transmit data and display-control data which were memorized by the transmitting data buffer 132.

[0053] Moreover, in the case of the data of the transmit data method as which transmit data is specified with the protocol of a communication network 3 like a packet, the transmitting section 17 assembles a packet, stores accounting data etc., transmits to a transmission buffer as data for a synchronization, and sends out to a communication network 3.

[0054] It has the backup file 183 of the accounting file memorized in an accounting file space 181 besides the update file field 182 memorize updating accounting data, such as the accounting file space 181 and the accounting data which were inputted which memorize two or more accounting files which preservation memory 18 consists of rewritable preservation memory of a magnetic disk, an optical disk, or a flash memory, and begin each journalizing file and consist of the various files and the basic file for accounting, and correction data, a history file for historical-data preservation, etc.

[0055] In addition, although the example which constituted the computer apparatus 2 from explanation of above-mentioned drawing 2 as accounting equipment was shown, what was not limited to these, for example, carried the program for accounting (an accounting data input processing facility is included) and the communication control program in the personal computer (personal computer) is sufficient as the computer apparatus which can apply the synchronous processing method of the accounting data of this invention. Moreover, in an accounting data input processing facility, an accounting data input processing program means the program created in order to realize such an accounting data input processing facility here including the function of carrying out correction processing of correction, deletion, an additional input, etc. to the accounting data by which a screen display was carried out to the function (not limited to a key input (for example, the input by OCR may be used)) input and \*\*\*\*\*\* accounting data, in the predetermined format.

[0056] (Auditing accounting equipment) again -- auditing -- accounting -- equipment (the 1st computer apparatus) -- one -- a configuration -- a degree -- stating -- a control section -- 12 -- '-- control action -- an activity -- memory -- 13 -- '-- and -- preservation -- \*\* -- memory -- 18 -- '-- a

field -- a configuration -- and -- data volume -- removing -- if -- the accounting equipment 2 of drawing 2, and the equipment of the same configuration -- \*\*\*\*\*\*.

[0057] Control-section 12' controls the synchronous processing program execution of the accounting data stored in program storing memory in the processor configuration which consists of circumference circuits, such as CPU, program storing memory, RAM, and a clock, while controlling actuation of nothing and the accounting equipment 2 whole, and performs synchronous processing of accounting data based on this invention. Moreover, execution control of the auditing application program (accounting data input processing is included) stored in program storing memory is performed. Moreover, program storing memory can store the format data for a display besides various programs, icon data, etc. (the storing memory which stores the format data for a display, icon data, etc. may be prepared independently).

[0058] For example, if control-section 12' has a connection request based on synchronous processing from adviser point accounting equipment 2, it will perform execution control of a series of synchronous processing by the synchronous processing program of accounting data based on this invention to the data for a synchronization (the accounting file for the adviser points for [ which is not processed synchronously ] a synchronization or its record is said) memorized by preservation memory 18'. In addition, if control-section 12' has the synchronous directions by the person in charge when it is constituted so that auditing accounting equipment 1 can perform synchronous directions, it is sent out to the accounting equipment 2 of the adviser point specified through the transmitting section 17 at the time of synchronous directions of a synchronous initiation indication signal. [0059] Moreover, control-section 12' performs the backup process of the accounting file of the adviser point first specified that synchronous processing is started. In addition, when it constitutes so that auditing accounting equipment 1 can perform synchronous directions as mentioned above, the backup process of the accounting file of the adviser point specified at the time of synchronous directions is performed.

[0060] Moreover, if control-section 12' has a data transmission control at the time of synchronous processing, it will take out the data for a synchronization from preservation memory 18', and they will carry out storage control so that it may memorize to the transmitting data buffer 132. Moreover, in compressing the data for a synchronization etc. and transmitting, it controls control-section 12' to memorize the data for a synchronization which took out the data for a synchronization etc. from preservation memory 18', and were compressed by the predetermined compression program to the transmitting data buffer 132. Moreover, in enciphering the data for a synchronization etc. and transmitting, it controls a control section 12 to memorize the data for a synchronization which took out the data for a synchronization etc. from preservation memory 18', and were compressed by the predetermined encryption program to a transmission buffer 132.

[0061] Moreover, if the data for a synchronization based on synchronous processing are received from the specified adviser point accounting equipment 2 side, storage control of control-section 12' will be carried out so that the received data for a synchronization may be memorized to a data buffer 131. Moreover, when the received data for a synchronization are compressed, execution control of the elongation of the compressed data based on an elongation program is carried out with the activity buffer 133, and storage control to the data buffers 131, such as elongated data for a synchronization, is performed. Moreover, when the data for a synchronization etc. are enciphered, the encryption data based on a decode program are decoded, and storage control to the data buffers 131, such as decoded data for a synchronization, is performed.

[0062] Activity memory 13' consisted of volatile memory, such as DRAM, and is equipped with bigger memory space than the activity memory 13 of adviser point accounting equipment 2. Activity memory 13' is transmitted from each adviser point accounting equipment 2 through the correction journalizing file and communication network which were obtained by auditing data input processing, as shown in drawing 3 (b). Data buffer field 131' which memorizes the update file taken out from the data by which reception was carried out, Transmitting data buffer 132' and working-level month buffer 133' which memorize temporarily the data (an update file, transmitting notice data, and display-control data) transmitted to adviser point accounting equipment 2 through a communication network 3 are securable. Moreover, data buffer field 131' is divided into the data buffer field classified by adviser point which memorizes the primary accounting file transmitted by E-mail

through the Internet 3 from two or more adviser point accounting equipments 2 according to the adviser point.

[0063] preservation -- memory -- 18 -- ' -- a magnetic disk -- an optical disk -- or -- a flash memory etc. -- rewriting -- being possible -- preservation -- memory -- from -- becoming -- each -journalizing -- a file -- beginning -- accounting -- \*\* -- various kinds -- a file -- a foundation -- a file
-- from -- becoming -- plurality -- accounting -- a file -- memorizing -- accounting -- a file space -181 -- ' -- and -- accounting -- a file space -- 181 -- ' -- storing -- having -- \*\*\*\* -- each -- an adviser -the point -- each -- accounting -- a file -- inside -- a synchronization -- an object -- an adviser -- the
point -- accounting -- a file -- backing up -- a backup file -- 183 -- ' -- historical data -- preservation -\*\* -- a history file -- etc. etc. -- having -- \*\*\*\* (drawing 19). In addition, you may make it prepare
a history file in separate preservation memory.

[0064] Moreover, although the example which constituted the computer apparatus 1 from above-mentioned explanation as auditing accounting equipment was described, what was not limited to these, for example, carried the program for accounting (an accounting data input processing facility is included) and the communication control program in the personal computer (personal computer) is sufficient as the computer apparatus which can apply the synchronous processing method of the accounting data of this invention, and what carried the accounting data input processing program and the communication control program in the personal computer is sufficient as it.

[0065] (Accounting file) the fundamental data (a trade name code (branch code) --) which need an accounting file on the accounting of for example, an adviser point company The basic file which stored a trade name (branch name), the number of terms, a fiscal period, and ..., The subject file which registered the exception of account headings and a subject code, and the debtor and the credit side etc., A subject classification file, the journalizing file which carried out fixed period (this example moon unit) storing of the accounting data (= journalizing data) (the journalizing file for January) There are a journalizing file, ... (drawing 16), various ledger files, various supplementary files, a control file for February, etc., and with adviser point accounting equipment 2, as mentioned above, each accounting file is memorized to accounting file space 181' secured to the preservation memory 18.

[0066] moreover -- auditing accounting equipment 1 -- accounting files 192-1-1,192-1-2 other than basic file 191 ... To 192-2-1,102-2-2 and ... (drawing 19), the adviser point A The file identification code for identifying adviser point identification code and accounting file types, such as a trade name code, respectively is independently given to each accounting file possible [management of an accounting file]. B and .. Each accounting file stored in accounting file space 181' is classified according to adviser point identification code and a file identification code. Moreover, fundamental data required on the accounting of an adviser point company which mentioned above are stored in the basic file 191 per adviser point.

[0067] (Update file) An update file is a file memorized to the update file field 182 of adviser point accounting equipment 2, and is a journalizing file (created by the dealings moon of the inputted accounting data (new accounting data and correction input data) monthly, respectively) inputted and journalized by accounting data input processing.

[0068] Moreover, under the accounting file memorized by the accounting equipment 1 by the side of an accountant's office (computer apparatus) so that it may mention later in synchronous processing, The updating accounting file in which the correction input was carried out by audit or verification of an accountant's office and which was transmitted to adviser point accounting equipment (computer apparatus) 2 as an accounting file by which correction processing was carried out is also treated as an update file (that is,). In synchronous processing, the accounting file of the adviser point concerned updated with audit accounting equipment 1 is also copied to the update file field 181.

[0069] Moreover, among the accounting files of auditing accounting equipment 1, a correction input is carried out by audit or verification of an accountant's office, it is transmitted to the adviser point accounting equipment 2 correspond as a record (updated record) of the accounting file by which correction processing was carried out, and the update file (journalizing file) of the adviser point and the merged result also become with an update file so that it may mention later in synchronous processing.

[0070] Drawing 4 is drawing showing accounting data and one example of a transmitting file, and

the explanatory view in which <u>drawing 4</u> (a) shows one example of accounting data (record), and <u>drawing 4</u> (b) shows the structure of a transmitting file, and <u>drawing 4</u> (c) are drawings showing the configuration of the control data stored in the head of a transmitting file.

[0071] The accounting data (record) 40 consist of the date column 41, the debit subject column 42, the credit-side subject column 43, the amount-of-money column 44, a space for notes 45, the slip number column 46, partition code field 47, and the correction flag column 48 by drawing 4 (a), and the journalized dealings are memorized. In addition, when correction (additional correction) of data is performed, it is a correction flag (additional = "1", correction = "2", and deletion = "3" are written in.) to the flag column 48.

[0072] Moreover, it is inputted by the personal computer carried in the synchronous processing program, the accounting program or accounting data input processing program, and communication control program of the accounting data which realize synchronous processing of accounting data based on accounting equipment 2 (1) or this invention, and journalizing processing is carried out by the accounting data input processing facility (program), the accounting data 40 are memorized by the data buffer 131 of the activity memory 13, and a screen display is carried out by the input format as shown to drawing 5 and drawing 6.

[0073] Moreover, correction data are added to the correction part of the accounting data which correspond by the accounting data input processing facility if correction data are inputted. If deletion directions are performed, a deletion directions data number (line count) will be held to the working-level month buffer 133, and deletion displays (discriminating display of inverse video etc.) will be performed to the accounting data of relevance. A check of a person in charge Waiting, A deletion flag "3" is written in the flag column 48 of the accounting data which correspond if there is a check input (when a deletion flag is attached, not displayed on a display 14).

[0074] Moreover, the transmitting file 50 consists of a group of two or more transmit data with which one control data 51, display-control data 52, and the accounting data 40 were matched with 1 to 1 by drawing 4 (b). Moreover, the display-control data 52 consist of a pointer in which the display-position relation on the screen of corresponding accounting data (context) is shown including the identification code which identifies the transmitting file 50 so that control data 51 may be mentioned later (for example, let the date and slip number of accounting data which are displayed one line ago be a pointer.). In this case, the slip number of the pointer of top accounting data is set to

[0075] The transmitting file 50 is assembled by the transmitting file (transmit data) data format specified by the protocol of a communication network etc. at the time of transmission, and is sent out to a communication network 3 from the transmitting section 17. Therefore, the maximum number of the group of the transmit data which consists of display-control data 52 and accounting data 50 changes with transmitting file sizes (data length) specified by a protocol etc. Moreover, each data stored in a transmitting file at the time of transmission can be enciphered or (with no compression) compressed, and the transmitting file 50 can also be generated.

[0076] Moreover, the control data consists of drawing 4 (c) so that the transmitting identification code 514 other than bibliography-data like the trade name code 511, a trade name 512, and the accounting date 513 may be stored. Bibliography-data like the trade name code 511, a trade name 512, and the accounting date 513 are displayed on the upper column of the display format in the case of a screen display etc. Moreover, the transmitting identification code 514 takes the value of either usual ["usual / 00:usual (condition of not transmitting) /"], or "01:transmission." Transmitting-side equipment sets the transfer identification code 514 to "01" at the time of transmission, creates a transmitting file and transmits it. The control section 12 of receiving-side equipment investigates the transmitting identification code 514 of the control data 51 in the transmitting file 50 which received, and when it is "01", it starts concrete processing of interactive processing between equipment of the accounting data of this invention.

[0077] <u>Drawing 5</u> is drawing showing one example of the accounting data input format displayed on a display screen, and is drawing showing the example of a cross slip input screen. The trade date input column 61 into which the cross slip input screen 60 inputs a trade date (a year, the moon, and day) by <u>drawing 5</u>, The heading column which formed the management partition input column 62 which inputs the management partition for controlling accounting per a section, a place of business,

and project, The input row column which prepared the input row which consists of the credit-side amount-of-money input column 68 which inputs the debit amount-of-money input column 63 which inputs the debit amount of money, the debit subject input column 64 which inputs a debit subject, the debit summary input column 65, the credit-side summary input column 66, the credit-side subject input column 67 that inputs a credit-side subject, and the debit amount of money the number of predetermined lines, It has the sum total column and the carbon button 69 (the icon or mark) for synchronous directions which display the sum total of the debit amount of money and the credit-side amount of money. Moreover, although it sees and not being illustrated in the broth item column, the icons (carbon button etc.) or mark for directing the display of accounting data, correction, deletion, additional input, printing, termination, etc. is displayed.

[0078] The head office, a branch, works, a section, a project, contracted work, etc. are the partitions prepared on accounting control, and a management partition is classified beforehand and coded. Moreover, if the code which coded the management partition, the debit subject, and the credit-side subject, respectively is inputted into the management partition input column 62, the debit subject input column 63, and the credit-side subject input column 67 at the time of an input, it will be changed into an alphabetic character by the translation table with which accounting equipment 100 was equipped beforehand, and character representation will be carried out to each input column. In addition, it may be made to carry out a direct alphabetic character input on a management segment name, a debit subject, and a credit-side subject at the management partition input column 62, the debit subject input column 63, and the credit-side subject input column 67 at the time of an input. [0079] Moreover, the debit summary input column 65 is the input column which inputs the summary which shows the contents of dealings of the debtor who consists of the debit amount-of-money input column 63 and the debit subject input column 64, the credit-side summary input column 66 is the input column which inputs the summary which shows the contents of dealings of the credit side who consists of the credit-side amount-of-money input column 67 and the credit-side subject input column 68, and the alphabetic character input of the summary is carried out.

[0080] Moreover, although the debit summary input column 65 was made into the upper case by each input row and the credit-side summary input column 66 has been arranged as the lower berth in this example Arrangement of the debit summary input column 65 and the credit-side summary input column 66 is not limited to this, but it is only that the screen size of a display 14 receives the constraint on a design. For example, you may arrange to a single tier so that each other may be adjoined in the debit summary input column 65 and the credit-side summary input column 66, and the credit-side summary input column 66 may be arranged to the degree of the credit-side amount-of-money input column 68.

[0081] Moreover, although the debit subject input column 64 has been arranged to the degree of the debit amount-of-money input column 63 in this example, you may make it arrange the debit amount-of-money input column to the degree of the debit subject input column 64. Moreover, although the number of input rows was made into eight lines in the example of <u>drawing 5</u>, it is not limited to this but should form only the number in which a design top is possible.

[0082] Moreover, the slip number input (display) column which inputs a slip number into the cross slip input screen 60 (or automatic display) may be prepared (in the example of drawing 5, prepared in the upper right corner). Moreover, two or more management partition input columns 62 may be formed according to a management partition. Moreover, you may make it prepare the complementary code input column in the debit subject input column 64 and the credit-side input column 65. Moreover, at the time of an input, the cursor which it shows to an input part is displayed. [0083] Drawing 6 is drawing showing other examples of the accounting data input format displayed on a display screen. The column 71 which displays bibliographic items which acquired the accounting data input format 70 from the received control data 61 by drawing 6, such as a firm name and an accounting fiscal year, The selection column 73 to which the directions of the moon display column 72 which displays the dealings moon, the display of accounting data, correction, deletion, an additional input, printing, termination, etc. are indicated by the icon, and directions selection by the person in charge is carried out, The carbon button 74 (an icon or mark) for synchronous directions, the data name display column 76 and the accounting data display column 77, and the guidance message indicator column 78 and the input column 79 are prepared.

[0084] In the data name display column 76, moreover, the line-number column, the date column, the debit subject column, the credit-side subject column, The amount-of-money column and a space for notes are prepared, and the date data of the accounting data which the data display column 77 keyed, or the received accounting data (drawing 4 (a)) are displayed on the location corresponding to the date column. When accounting data are a debit subject, when a debit subject name is [ accounting data ] the credit-side subject column, a credit-side subject name is displayed on the location corresponding to the debit subject column by the location corresponding to the credit-side subject column, and amount-of-money data are performed in the location corresponding to the location corresponding to the amount-of-money column in summary data. Moreover, since the context at the time of a display is connected with corresponding display-control data, one line can be distributed sequentially from [ each ] the best column of the data display column 77, and each accounting data is displayed. Moreover, also when there are more accounting data of the activity memory 132 than the line count of the data display column 77, the accounting data which are scrolled up and down by the scrolling key stroke or point actuation of a scroll button which is not illustrated, and are not displayed can be displayed. In addition, "the accounting data for a display" as used in this specification means a relating eclipse and the accounting data which can be displayed by scrolling for order with display-control data.

[0085] Moreover, the actuation guidance message and warning message at the time of a data input or a data correction input are displayed on the guidance message indicator column 77. Moreover, the input column 79 is a column as which the inputted data are displayed, and the character string changed into the character string or name inputted by confirmation operation is displayed on the display column of a cursor location.

[0086] Journalizing processing is carried out and the accounting data inputted from the cross slip input screen of above-mentioned drawing 5 and/or the input screen of drawing 6 are stored in an accounting data file. Moreover, at the time of correction processing of accounting data or verification, the accounting data stored on these input screens at the accounting data file can be displayed.

[0087] [Synchronous processing] (example of user operating procedure at time of data input processing) drawing 7 is a flow chart which shows one example of the user actuation at the time of data input processing (user interface), and synchronous processing will be performed if \*\* described below is operated.

- \*\* Job selection menu which the person in charge started accounting equipment 2 (or accounting equipment 1), and was displayed An accounting data input job (JOB) is chosen from inside.
- \*\* Next, since an accounting file selection menu is displayed, a person in charge chooses the accounting file (for example, journalizing file of xx moon) of a processing object (reading of the accounting file for a synchronization is started by this actuation (<u>drawing 9</u> (process P1)).).
- \*\* A person in charge chooses the actuation selection carbon buttons (an "input", correction ("an addition", "correction", "deletion"), "a synchronization", "termination" carbon button, etc.) displayed on the displayed input screen (<u>drawing 5</u> or <u>drawing 6</u>).
- \*\* If a person in charge pushes a "synchronous" carbon button (<u>drawing 9</u> (process P4) and synchronous processing are performed.)
- \*\* A synchronization place selection screen is displayed at this time, and a synchronization place can be chosen (it is not necessary to choose (in this case, only in case of confirmation operation)).
- \*\* Similarly, since the check screen of the file of the synchronization place which takes a synchronization is displayed, check again.
- \*\* Since the original input screen is displayed after synchronous processing is completed, return to \*\*, perform actuation selection and operate correspondence. Moreover, in terminating an accounting data input job, it chooses "termination" carbon button.

[0088] (Synchronous processing process) It is the explanatory view showing the data flow at the time of synchronous processing when <u>drawing 8</u> uses a synchronizing agency as adviser point accounting equipment 2 and uses a synchronization place as auditing accounting equipment 1, and <u>drawing 9</u> is a process chart at the time of the synchronous processing at the time of using a synchronizing agency as adviser point accounting equipment 2, and using a synchronization place as auditing accounting equipment 1. In addition, a continuous line shows the data flow at the time of

synchronous processing by  $\frac{\text{drawing 8}}{\text{drawing 8}}$ , and a broken line shows the data flow in other processings. Moreover, the notations P1-P12 of  $\frac{\text{drawing 8}}{\text{drawing 8}}$  show the process notation of  $\frac{\text{drawing 9}}{\text{drawing 9}}$ . Moreover, for pretreatment and P4, input process, and P5-P11 are [P1 and P2/synchronous processing and P12] the processes of a post process in  $\frac{\text{drawing 8}}{\text{drawing 9}}$  and  $\frac{\text{drawing 9}}{\text{drawing 9}}$ .

[0089] Process P1: (reading of a synchronizing agency file)

If a person in charge chooses an accounting file with the accounting file space 181 with the accounting equipment 2 of a synchronizing agency by \*\* of <u>drawing 7</u>, the selected accounting file will be read into the data buffer 131 and the working-level month buffer 133 of the activity memory 13.

[0090] Process P2: (backup of a synchronizing agency file)

Next, it transmits to a backup file 183 and accounting equipment 2 memorizes each accounting file in the accounting file space 181 (backup).

[0091] Process P3; (processing selection)

A person in charge points at the selection carbon button of an input screen etc. with a mouse 11, and it is a "data input" (if new input and correction (additional correction, deletion) processing is chosen, it will change to P4, if "a synchronization" is chosen, it will change to P5, and if "termination" is chosen, it will change to P12.).

[0092] Process P4: (data input processing etc.)

If data input processing is chosen by \*\* of drawing 7, the additional input of data is attained, and the inputted accounting data will be written in the buffer 131 for a display, and will be displayed on the display column of an input screen. Journalizing processing will be carried out and input data will be memorized by the activity buffer 133, if a person's in charge confirmation operation is made. Moreover, if correction processing is chosen, the contents of the data buffer 131 will be added by the input result, and a correction result will be displayed on an input screen. Moreover, an input result is written in the working-level month buffer 133. After a series of data inputs finish, the accounting data written in the working-level month buffer 133 are memorized to the update file field 182 as an update file (period pointed out at the time of an input) (journalizing file), and a data buffer 131 and the working-level month buffer 133 are cleared, return to P3, and wait for the next processing selection actuation.

[0093] Process P5: (selection of synchronous processing, and decision of a synchronization place) If a person in charge points at the synchronous carbon button (69 74) on an input screen ( <a href="mailto:drawing 5">drawing 6</a>) with a mouse 11 by \*\* of <a href="mailto:drawing 7">drawing 7</a>, synchronous processing will be started and accounting equipment 2 will establish a communications protocol with the accounting equipment 1 of a synchronization place. And the accounting file of a synchronization place is determined by the actuation shown in the flow chart of below-mentioned <a href="mailto:drawing 10">drawing 10</a> (<a href="mailto:drawing 10">drawing 10</a>), <a href="mailto:drawing 11">drawing 11</a>). <a href="mailto:loose1">[0094]</a>] Process P6: (backup of a synchronization place accounting file)

If the accounting file (accounting file of the adviser point at which synchronous directions were performed) of a synchronization place is determined in the above-mentioned process P5, accounting equipment 2 will transmit the adviser point identification code and the file identification code of an accounting file which were determined to accounting equipment 1. It will transmit to backup file 183', and accounting equipment 1 will memorize the accounting file (accounting file by which data are updated by synchronous processing) concerned of accounting file space 181' related [ which is related and accounting-files ], if adviser point identification code and a file identification code are received (backup).

[0095] Process P7: (decision and transmitting and receiving processing of a transceiver file and a priority)

Moreover, after selecting a transceiver file candidate in actuation as shown in the flow chart of drawing 13 mentioned later and the accounting equipment 2 of a synchronizing agency determines the priority of whether to transmit a file from the transmission place which transmits a file previously from decision [ of a transceiver file ], and transmitting origin for every file, it carries out the transmission and reception and the update process of a transceiver file which were determined ( drawing 13 - drawing 18 ).

[0096] Process P8: (renewal of the balance and update information file creation of a synchronization place)

Renewal of the balance of each accounting file which was updated by the transmitting and receiving processing of the above-mentioned process P7 in the accounting file memorized by accounting file space 181' of a synchronization place (accounting equipment 1) and which is related [ which is related and accounting-files ] carries out, and the update-information file (CTyyyyy) collected the renewal records of the newest of each accounting file after an update process (updating time, the number of updating data, etc.) creates.

[0097] Process P9: (renewal of the balance of the accounting file of a synchronizing agency) Renewal of the balance of each accounting file which was updated by the transmitting and receiving processing of the above-mentioned process P7 in the accounting file memorized to the update file field 183 of the synchronous origin (accounting equipment 2) updated by the transmitting and receiving processing of the above-mentioned process P7 and which is related [ which is related and accounting-files ] is performed.

[0098] Process P10: (copy to the accounting file (synchronizing agency) of an update file) In the above-mentioned process P9, each file of the update file field 181 by which renewal of the balance was carried out is copied to the accounting file to which the accounting file space 181 of a synchronizing agency corresponds, and is updated.

[0099] Process P11: (synchronizing agency update information file creation)

The update information file (CTxxxxx) which collected each renewal records of the accounting file newest broken in the above-mentioned process P11 is created.

[0100] Process P12: (post process)

If "termination" carbon button is pointed at by the input screen of accounting equipment 1, after an accounting file will write and performing post processes, such as return processing, data input processing is ended.

[0101] [Selection decision of selection [ of synchronous processing ] and synchronization place accounting file] drawing 10 is a flow chart which shows one example of synchronization place accounting file decision actuation of the process P5 of drawing 9. Moreover, drawing 11 is drawing showing one example of the screen for synchronization place accounting file decision, drawing 11 (a) shows an example of a synchronization place accounting file check screen, and drawing 11 (b) shows an example of a server selection screen.

[0102] Step S1: (establishment of a communications protocol)

If a synchronous carbon button is pointed at, the control section 12 of the accounting equipment 2 of a synchronizing agency will control the communications control section 15, and will establish a communications protocol with a synchronization place (accounting equipment 1).

[0103] Step S2: (sending out and requested data reception of a basic file data Request to Send) If a control section 12 sends out the Request to Send of the information (a trade name code, a trade name, accounting date, etc.) in the storing location specified last time in the basic file of the preservation memory (18') of a synchronization place (accounting equipment 1) to a synchronization place through the transmitting section 17 and requested data is received from a synchronization place through a receive section 16, it will change to step S3.

[0104] Step S3: (information reception and display of a synchronization place accounting file check screen)

A control section 12 displays \*\*\*\*\* which received at the above-mentioned step S2 on a display 14 as a file check screen 110 like drawing 11 (a), and demands the check of a synchronization place accounting file from a user.

[0105] Step S4: (check judging)

A control section 12 will change to step S6 by considering this accounting file as a synchronization place accounting file, if a user points at a confirmation button (YES) with a mouse 11. Moreover, if a negative carbon button (NO or cancellation) is pointed at, it will change to step S5.

[0106] Step S5: (server selection screen display etc.)

When a negative carbon button is pointed at by the above-mentioned step S4 or a phase hand cannot be specified in the time of the synchronous first time etc., after displaying server selection screen 110 as shown in drawing 11 (b) and making a synchronization place accounting file decide, it changes to step S3.

Step S6: (judgment of whether to be able to synchronize)

A control section 12 transmits the adviser point identification code of the accounting file determined to the synchronization place through the transmitting section 17, a file identification code, and the notice demand of a condition. When the file is using it from a synchronization place or the condition signal (synchronous impossible signal (busy signal)) meaning the conditions which cannot synchronize in addition to this being set up is received, synchronous processing is terminated and it returns to a process P3. Moreover, when it can synchronize (signal which can be synchronized), it changes in a process P6.

[0107] [Generation of update information file] drawing 12 is the explanatory view of the generation method of an update information file. It understands [whether after synchronizing last time, which file is updated at the time of a next synchronization by extracting the renewal period of the newest of the file which constitutes each accounting file from a synchronizing agency and synchronization place equipment etc. from the update information of each file, and generating an update-information file, respectively, and ] immediately after updating an accounting file with mutual synchronizing agency (accounting equipment 2) and synchronization place (accounting equipment 1) by synchronous processing, and synchronizing it.

[0108] In addition, the time stump (time information) memorized by the update information of each file is set from the system clock of each equipment (.). (drawing 12 (a) shows the update information of the update file by the side of accounting equipment 2, and drawing 12 (b) shows the update information of the accounting file by the side of accounting equipment 1) Thereby, even when the system clock of a synchronization place is different the synchronizing agency, the decision of an exact transceiver candidate file is attained.

[0109] Moreover, although the example of <u>drawing 12</u> showed only what is the synchronous origin generated from the update information 121 of <u>drawing 12</u> (a) as an update information file 123, and is generated ((it expresses with the notation under the left corner of the update information of <u>drawing 12</u> (a) "CT00019000")), [<u>drawing 12</u> (c) and ] The update information file 124 (expressed with the notation "CT00022000" under the left corner of the update information 122 of <u>drawing 12</u> (b)) (similarly generated from the update information of each file of <u>drawing 12</u> (b).) of a synchronization place

[0110] The decision of a transceiver file and [transmitting-and-receiving-processing] drawing 13 are flow charts which show one example of the decision of a transceiver file, and updating (synchronization) actuation of the accounting file by transmitting and receiving processing. Moreover, drawing 14 is the explanatory view of the transmitting candidate file selection approach, and drawing 15 is the explanatory view of the receiving candidate file selection approach. Moreover, drawing 16 is drawing showing one example of a transceiver file check screen, and drawing 17 is drawing showing one example of the screen for a priority change of a transceiver file. [0111] Step T1: (selection of the transmitting candidate file updated by the data input) After the backup process of the synchronization place accounting file of the process P5 of drawing 9 finishes, a control section 12 considers the file which updated by carrying out a data input by the synchronizing agency (accounting equipment 2) as a transmitting candidate file. That is, from the internal-storage variable of a data input, since the file (updating journalizing file) updated after starting this data input before pointing at the synchronous carbon button (a new data input and/or correction input) can be specified, when these files are updated, it adds to a transmitting candidate file.

[0112] Step T2: (selection of the transmitting candidate file by the comparison of synchronizing agency update information)

Furthermore, a control section 12 compares the update information (drawing 14 (a)) of each file of the accounting file of a synchronizing agency with the update information memorized by the update information file 132, and the file is carried out as a file which had updating in the file whose time amount does not correspond as a transmitting candidate file (candidate file which transmits to a synchronization place from a synchronizing agency).

[0113] Step T3: (selection of the receiving candidate file by the comparison of synchronization place update information)

Next, a control section 12 requires transmission of the update information (drawing 14 (a)) of each file of a synchronization place accounting file, and the update information memorized by the update

information file from accounting equipment 1. The update information (drawing 14 (b)) of each file of the synchronization place accounting file which received is compared with the update information memorized by the update information file 142. Let the file be a receiving candidate (candidate file which receives from a synchronization place to a synchronizing agency) as a file which updated all the files whose time amount does not correspond.

[0114] Step T four: (list display of a transceiver candidate file)

A control section 12 classifies into a transmitting candidate file and a receiving candidate file the receiving candidate file extracted by the transmitting candidate file and above-mentioned step T3 which were extracted at the above-mentioned steps T1 and T2 in order of a file number, and displays to the transceiver file check screen 160 of a format as shows the file name to drawing 16. [0115] In the example of drawing 16, a list indication of the transceiver file candidate between the "\*\*\*\*\*\*\*\* accountant's offices" which is the adviser point "OOOO, Inc." and the transmission place which are a synchronizing agency is given. Moreover, the priority of transmission and reception is expressed with "transmission" and the notation displayed on the "receiving" column. The priority is expressed with this example in order of O>O>x. Moreover, a synchronizing agency, when the synchronization place is updated, it is displayed by "OO" or "OO", and it is expressed with "Ox" and "xO" when only one side is updated. Moreover, the direction where the synchronization place is updated [ of the number of data ] in many cases is made into O a synchronizing agency again. Moreover, when the number of data is in agreement, it determines by the renewal time amount of the newest.

[0116] Step T5: (a check or modification of a transceiver file etc.)

When each transceiver file displayed on the transceiver file check screen 160 may be used, a user points at "confirmation-button" 161 currently displayed on the lower column of Screen 160 with a mouse 11, or presses a line feed key. Moreover, make cursor 162 go up and down, it is made to move to the location of the file of relevance to setup-change or cancel, and the setting modification carbon button 163 is pointed at, "Cancel button" 164 are pointed at, or a cancel key is pushed.

[0117] When the data input section 10 and the signal from a mouse 11 are investigated and there is the point of "confirmation-button" 161 or depression of a line feed key, a control section 12 extracts the file as which the priority notation is displayed as a transceiver file, and changes to step T6.

Moreover, when there is the point of the setting modification carbon button 163, it changes to step T7, and when there is the point of "Cancel button" 164 or depression of a cancel key, it changes to T10.

[0118] Step T6: (file transmitting and receiving processing)

If a check is performed at the above-mentioned step T5, file transmitting and receiving processing will be performed in actuation as shown in <u>drawing 18</u>, and it will change in a process P7. [0119] Step T7: (priority setting modification)

A control section 12 changes Screen 170 for a priority setting change, and displays the data of the line specified with cursor 162 at the above-mentioned step T5 on the data display column 173 while it displays Screen 170 for a priority setting change of the transceiver file of a format as shown in drawing 17.

[0120] Step T8: (setting modification)

a user -- three change patterns "a change of 1 and 2:priority" of the change actuation guidance column 171 -- "-- 3. -- it does not synchronize -- " -- if cursor 171 is moved to one of lines, a control section 12 will display the line number chosen as the acknowledgment indicator column 172, and a check will be urged to it. And if a user presses a line feed key, it will change to step \*\*T9. [0121] Step T9: (display of the transceiver file check screen after setting modification)

If it changes at the above-mentioned step T8 and a pattern 1 or 2 are chosen, a control section 12 is the indicative data of the reception file check screen 160 displayed at the above-mentioned step 4, and after transposing to the contents which had the contents of the "transmitting" column which shows priority among the data of the line specified with cursor 162 at the above-mentioned step T5, and the "receiving" column specified, a reception file check screen 160 displays and it will change to step T5. Moreover, if it changes at the above-mentioned step T8 and a pattern 3 is chosen, it will change to step T10.

[0122] In the example of drawing 17, the journalizing file for June is shown in the display column

173 of Screen 170 for a setting change by setting change actuation of step T5 among the files displayed on the transceiver file check screen 160. Moreover, since it changes in this example and the pattern 2 is chosen, if a line feed key is pressed, the transceiver file check screen 160 where the transceiver priority display of the journalizing file for June was changed from "Ox" to "xO" will be displayed (that is, it changes from synchronizing agency priority to synchronization place priority). [0123] Step T10: (priority cancellation of a transceiver candidate file)

A control section 12 cancels the display of priority transmission of the "transmitting" column currently displayed on the line specified with cursor 162, and the "receiving" column, and is a cancellation notation (for example, as "\*" is displayed on the "transmitting" column and the "receiving" column, since, the reception file check screen 160 is displayed and it changes to step T5.).

[0124] [Transmitting and receiving processing of file] drawing 18 is a flow chart which shows one example of the transmitting-and-receiving-processing actuation of a file processed synchronously, and is equivalent to actuation of step T6 of drawing 13. In this case, a transmitting agency, since the updated accounting data may overlap when the file of the pair of a transmission place is updated for both sides, it merges per record (T5-2), and when having updated only by one side of a transmitting agency or a transmission place, it copies per file (T5-14).

Step T 5-1: (judgment of priority conditions)

By drawing 18, the control section 12 of a synchronizing agency (accounting equipment 2) The file of the pair of the synchronous origin displayed on the check screen 160 of a transceiver file when "check" actuation is pushed at step T5, and a synchronization place (that is, in the example of drawing 16) it investigates whether it is the file by which both the files of a synchronization place were updated the synchronous origin which has a transceiver file in the same line, and, in the case of the file (the example of drawing 16 -- the file of "OO" or "OO") both updated, changes T5-2. [0125] moreover, the case (the example of drawing 16 -- the file of "Ox" or "xO") (to a case, it changes T5-14 (in this example, the file of x mark means the file which is not updated).) where only one file of a synchronization place is updated the synchronizing agency Moreover, in the case of others (in for example, the case of the file by which both are not updated), the next line of the check screen 160 of a transceiver file is investigated.

[0126] Step T 5-2: (priority judging (1))

A control section 12 investigates which [ of the file of the pair of a synchronization place ] is high (O mark) in a priority a synchronizing agency, and when the direction of the file of a synchronizing agency has a high priority The file identification code of the file and the corresponding file identification code of the file of a synchronization place are acquired, and it changes to T5-3, when that is not right, the file identification code of the file of a synchronization place and the file identification code of the file of corresponding synchronous origin are acquired, and it changes to

[0127] Step T 5-3: (record reception of the updated accounting file of a synchronization place) The control section 12 of a synchronizing agency advances the Request to Send of the record of the accounting file updated by the synchronization place (accounting equipment 1) based on the file identification code of the synchronization place acquired by the above-mentioned step T5-2, and receives the record which corresponds from a synchronization place.

[0128] Step T 5-4: (merge application with a synchronizing agency file record)

The control section 12 of a synchronizing agency merges the record received by the abovementioned step T5-3 per the record of the file of an update file with which a synchronizing agency corresponds, and record. In addition, the record with off overwrite and correction flag is added with the update record of the accounting file which received the record of ON of a correction flag with the record of the update file concerned in the case of merge.

[0129] Step T 5-5: (synchronization place file record termination judging)

A control section 12 will change to T5-6, if the notice of record transmitting termination is received from a synchronization place (accounting equipment 1). When that is not right, it continues this step

[0130] Step T 5-6: (correction flag off processing)

A control section 12 investigates the flag column 48 of each record of the update file which merged

the record of a transmission place by the above-mentioned step T5-5, and clears all the correction flags of each record.

[0131] Step T 5-7: (copy of a synchronizing agency file)

A control section 12 transmits the contents of an update file which performed the merge application at the synchronization place by the above-mentioned step T5-10, and memorizes the update file which transmitted to the accounting file to which accounting equipment 1 corresponds.

[0132] Step T 5-8: (existence judging of the next file)

A control section 12 investigates whether the file which is not yet performing transmitting and receiving processing among the display, now the \*\*\*\*\* transceiver file is shown in the check screen 160 of a transceiver file, when there is a file which is not yet performing transmitting and receiving processing, returns to T5-1 and performs the priority condition judging of the next file. Moreover, when that is not right, transmitting and receiving processing is ended and it changes in a process P7.

[0133] Step T 5-9: (transmission of the record of the update file of a synchronizing agency) A control section 12 reads one record of records at a time from the update file to which it corresponds in each update file by which archival memory is carried out to the update file field 182 based on the file identification code of the synchronous origin acquired by the above-mentioned step T5-2, adds the file identification code of the synchronous origin acquired by the above-mentioned step T5-2, and transmits to the accounting equipment 1 of a synchronization place. In addition, a correction flag skips records other than ON (= "1", "2", or "3") in this case.

[0134] Step T 5-10: (merge application with the record of the accounting file of a synchronization

A transmission place merges per the record of the accounting file whose file identification code in the accounting file space (181') of a synchronization place corresponds the update record received from the synchronizing agency, and record. In addition, the record with off overwrite and correction flag is added with the update record which received the record of ON of a correction flag with the record of the accounting file concerned in the case of merge.

[0135] Step T 5-11: (synchronizing agency file record termination judging)

A control section 12 performs the termination judging of the update record read by the abovementioned step T5-10, and, in termination, changes T5-12. When that is not right, it returns to T5-9 and read-out and transmission of a record are performed.

[0136] Step T 5-12: (correction flag off processing)

The control section 12 of a synchronizing agency takes out the notice of the end of record to a synchronization place. The synchronization place which received the notice of termination investigates the flag column of each record of the accounting file merged at the above-mentioned step 5-4, and clears all the correction flags of each record (= "0").

[0137] Step T 5-13: (copy to the synchronization place of the applicable accounting file of a synchronization place)

The control section 12 of a synchronizing agency advances the Request to Send of the file which performed the merge application to a synchronization place by the above-mentioned step T5-10, if the merged file transmitted from the synchronization place is received, will memorize it to the update file which performed the termination judging by the above-mentioned step T5-11, and will change to T8.

[0138] Step T 5-14: (priority judging (2))

It investigates whether a priority of which is [ the control section 12 of a synchronizing agency ] higher between a synchronizing agency and a synchronization place among the files of the pair of a transmitting agency and a transmission place, when the direction of a synchronizing agency has a high priority, it changes to T5-15, and when that is not right, it changes to T5-16.

[0139] Step T 5-15: (transmission of the update file of a synchronizing agency)

The control section 12 of a synchronizing agency makes a corresponding accounting file memorize the update file which read the update file which corresponds from the update file field 182 based on the file identification code of the synchronous origin acquired by the above-mentioned step T5-2, transmitted to the synchronization place, and transmitted to the synchronization place, and if the notice of overwrite termination is received from a synchronization place, it will change to T5-8.

[0140] Step T 5-16: (the reception and the copy of an accounting file of a synchronization place) A control section 12 advances the Request to Send of the accounting file which corresponds to a synchronization place based on the file identification code of the synchronization place acquired by the above-mentioned step T5-2, and memorizes the accounting file which received from the synchronization place to the file of corresponding updating.

[0141] In addition, in the above-mentioned example, although it was made to direct synchronous processing by the accounting equipment 2 (computer apparatus 2) side, the accounting equipment 1 (computer apparatus 1) side may also be made to perform synchronous processing of the updated accounting file of accounting equipment 1, the update file of accounting equipment 2, and an accounting file to the timing of the arbitration after correction processing of accounting data (for example, journalizing file each data (= record)) and by the side of accounting equipment 1. moreover, if it constitutes so that the data synchronous directions by the person in charge of an accountant's office may perform activation timing of synchronous processing when it does in this way, the accounting data corrected according to the activity schedule of an accountant's office can be gathered, and can be synchronized (automatic -- every predetermined period -- or it can be made to synchronize after a data input or data correction processing termination). In this case, the process the inside of the process of drawing 9 and a synchronizing agency judge whether you are an accountant's office to be is established. If a synchronous carbon button is pointed at and synchronous directions are performed after a person in charge displays the input screen of a synchronization place (namely, processing synchronously adviser point) by the accounting equipment 1 side A synchronous processing initiation demand can be given from accounting equipment 1 to a computer apparatus, and it can constitute so that the process (the flow chart of drawing 10, drawing 13, and drawing 18 is included) of drawing 9 mentioned above to the computer apparatus may be performed. Moreover, when the inside of the process of drawing 9 and a synchronizing agency are accountant's offices, you may make it add the actuation (program module) which set aside the synchronization place a synchronizing agency with the flow chart of drawing 10, drawing 13, and drawing 18. Moreover, an update file field is established in accounting equipment 1 (computer apparatus 1). you may constitute so that the process (the flow chart of drawing 10, drawing 13, and drawing 18 is included) of drawing 9 may be performed as it is -- again By having constituted so that a user could change the priority of file transmission and reception by the number of data, or the last modification time amount at the above-mentioned steps T7 and T8 of drawing 13 Step T5-2 of above-mentioned drawing 18, and T5-14 by the result of the priority decision by steps T7 and T7 of drawing 13 The synchronization of the data in a synchronization place and the direction of reception will change a synchronizing agency. (For example, about the file of synchronizing agency priority, if a setting change is made at steps T7 and T8 of drawing 7 at synchronization place priority when there is little number of cases (refer to the priority setting modification screen of drawing 17), usually) Usually, the processing which changes from step T5-2 to T5-3, and merges the record of the file of a synchronization place into the file of a synchronizing agency by T5-4 Step T It will change to the processing which changes to 5-9 and merges the record of the file of a synchronizing agency into the file of a synchronization place by T5-10 (although based also on the configuration of a merge program). the case where the data number of cases decreases -- usually -- a passage T -- the way which performed the merge application of T5-10 rather than it performs the merge application of 5-4 -- processing speed (rate of merge) -- early -- there are many cases.

[0142] That is, it is [ or / it merges whether it is merged by the priority (that is, it is determined by the transceiver priority of a file whether the record of the file of whether the record of the file of a synchronizing agency is merged into the file of a synchronization place and a synchronization place is merged into the file of a synchronizing agency between the file of a synchronizing agency and the file of a synchronization place) ]. What is necessary is just to change a priority by modification of a priority according to the amount of data or line speed, since a priority can be changed at steps T7 and T8 of drawing 13 as mentioned above. In addition, although it is constituted so that the change of a priority may be manually performed in the example (drawing 17), you may make it change automatically based on the amount of data or line speed. Moreover, you may make it or or change [which merges with the amount of data or line speed regardless of a priority only in merge]

automatically whether merge is carried out.

[0143] As mentioned above, although one example of this invention is explained, this invention is not limited to the above-mentioned example, and it cannot be overemphasized that various deformation implementation is possible.

[0144]

[Effect of the Invention] According to the 1st thru/or the data synchronous approach of the 7th invention, a communication network is minded as explanation was given [ above-mentioned ]. Between the 1st computer apparatus and the 2nd computer apparatus in which data transfer is possible The data each other updated uniquely can be synchronized without an exclusive operation (lock) by easy actuation (that is, the data of the 1st computer apparatus and the 2nd computer apparatus are updated mutually, and are made without the relation of the main \*\* (considering that both sides are main) into the data of the same contents).

[0145] Moreover, according to the 2nd, the data synchronous approach of the 4th invention, the accounting equipment of the 9th invention, and the accounting system of the 12th invention A communication network is minded. Between the 1st accounting equipment (it installs in an accountant's office, the head office, etc.), and the 2nd accounting equipment (external accounting equipment; it installs in the adviser point, a branch, etc.) in which data transfer is possible Since it can synchronize by easy actuation, without an exclusive operation the data which both sides updated uniquely An accounting entry of data and the procedure of management can ease sharply in the adviser point, an accountant's office (the head office, branch), etc. (for example, even while correcting in accountant's offices (or head office etc.), a data input can be performed at the adviser points (or branch etc.)).

[0146] Moreover, according to the data synchronous approach of the 3rd invention, since the person in charge of the adviser points (or branch etc.) can perform activation initiation directions of synchronous processing, the input and correction data which were made before it can be gathered, and can be synchronized with a day with the sufficient convenience of the adviser points (or branch etc.).

[0147] moreover -- according to the data synchronous approach of the 5th invention -- the 1st computer apparatus (an accountant's office --) the head office etc. establishment-side and the 2nd computer apparatus (external accounting equipment; -- the adviser point --) Generating of the duplicate record which may be produced when a file is only added, since it merges in the record unit which constitutes a file when updating by an addition, correction, etc. of data is made by the file of the both sides by the side of installation to a branch etc. of the same kind can be prevented.

[0148] Moreover, since a file is transmitted and received by using the file of the way with much additional data and correction data as the base according to the data synchronous approach of the 6th invention, there is little merge time amount and it ends.

[0149] Moreover, according to the data synchronous approach of the 7th invention, and the accounting equipment of the 10th invention Since the priority of which updating data of adviser point accounting equipment or auditing accounting equipment to employ efficiently can be changed to the accounting data of the auditing accounting equipment of the same class as the accounting data of an adviser drawer back For example, a file can be synchronized after changing [ file / of the moon under inputs (or branch etc.) of the adviser point / journalizing ] priorities, such as auditing accounting equipment priority, about the file of the moon under accounting processing in adviser point accounting equipment priority and accountant's offices (or head office etc.). Therefore, the reinput of the data by the help to whom it was carried out conventionally, the correction, or the synchronous processing by lock control operation became unnecessary.

[0150] Moreover, since synchronous directions of data with the accounting data of desired adviser point accounting equipment can be performed by the auditing accounting equipment side according to the auditing accounting equipment of the 8th invention the accounting data corrected according to the activity schedule of the accountant's offices (or head office etc.) which installed auditing accounting equipment can be gathered, and can be synchronized -- again Since the synchronous directions by the person in charge of the adviser points (or branch etc.) can perform activation directions initiation of synchronous processing according to the 9th thru/or the accounting equipment of the 11th invention, and the accounting system of the 12th invention The input and correction data which were made before it can be gathered, and can be synchronized with a day with the sufficient

convenience of the adviser points (or branch etc.).

[0151] Moreover, since the accounting equipment of the 11th invention is equipped with the input screen as which the icon for synchronous directions or the mark was displayed, it can perform synchronous directions easily.

[0152] Moreover, according to the accounting system of the 13th invention, since activation initiation directions of synchronous processing can be performed from an auditing accounting equipment or adviser point accounting equipment side, there is little constraint on system management and it ends.

[Translation done.]

### \* NOTICES \*

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- 3.In the drawings, any words are not translated.

## **DESCRIPTION OF DRAWINGS**

[Brief Description of the Drawings]

[Drawing 1] It is the outline explanatory view of the accounting system of this invention.

[Drawing 2] It is the block diagram showing the configuration of one example of the computer apparatus (accounting equipment) which constitutes the accounting system of this invention.

[Drawing 3] It is the explanatory view of one example of the field layout of activity memory.

[Drawing 4] It is drawing showing accounting data and one example of a synchronous file.

[Drawing 5] It is drawing showing one example of the accounting data input format displayed on a display screen.

[Drawing 6] It is drawing showing other examples of the accounting data input format displayed on a display screen.

[Drawing 7] It is the flow chart which shows one example of the user actuation at the time of data input processing (user interface).

[Drawing 8] It is the explanatory view showing the data flow at the time of the synchronous processing at the time of using a synchronizing agency as adviser point accounting equipment, and using a synchronization place as auditing accounting equipment.

[Drawing 9] It is a process chart at the time of the synchronous processing at the time of using a synchronizing agency as adviser point accounting equipment, and using a synchronization place as auditing accounting equipment.

[Drawing 10] It is the flow chart which shows one example of synchronization place accounting file decision actuation.

[Drawing 11] It is drawing showing one example of the screen for synchronization place accounting file decision.

[Drawing 12] It is the explanatory view of the update information file-generating approach.

[Drawing 13] It is the flow chart which shows one example of updating (synchronization) actuation of the accounting file by the decision and transmitting and receiving processing of a transceiver file.

[Drawing 14] It is the explanatory view of the synchronous candidate file selection approach.

[Drawing 15] It is the explanatory view of the receiving candidate file selection approach.

[Drawing 16] It is drawing showing one example of a transceiver file check screen.

Drawing 17] It is drawing showing one example of the priority setting change screen of a transceiver file.

[Drawing 18] It is the flow chart which shows one example of the transmitting-and-receiving-processing actuation of a file processed synchronously.

[Drawing 19] It is the explanatory view of the example of a configuration of the accounting file space of auditing accounting equipment (the 1st computer apparatus).

[Drawing 20] It is drawing showing an example of the accounting system which can apply the synchronous processing approach of the accounting data of this invention.

[Description of Notations]

- 1 1st Computer Apparatus (1st Accounting Equipment)
- 2 2nd Computer Apparatus (2nd Accounting Equipment)
- 3 Communication Network
- 10 Data Input Section (Data Input Means)
- 69 74 Synchronous carbon button (an icon, synchronous directions means)

- 11 Mouse (Synchronous Directions Means)
- 12 Control Section (Update Information File-Generating Means, Synchronous File Decision Means, Accounting Data Synchronousr-Control Means, Priority Selection Decision Means)
- 15 Communications Control Section (Communications Control Means)
- 16 Receive Section (Transceiver Section)
- 17 Synchronizer (Transceiver Section)
- 160 Check Screen of Transceiver File (Transceiver File Decision Means)
- 170 Screen for Priority Change of Transceiver File (Priority Selection Decision Means)
- 181 Accounting File Space (Accounting File Memory Means, 2nd Accounting File Memory Means)
- 181' Accounting file space (1st accounting file memory means)
- 182 Update File Field (Update File Storage Means)
- 121 122 Update information
- 123 Update Information File

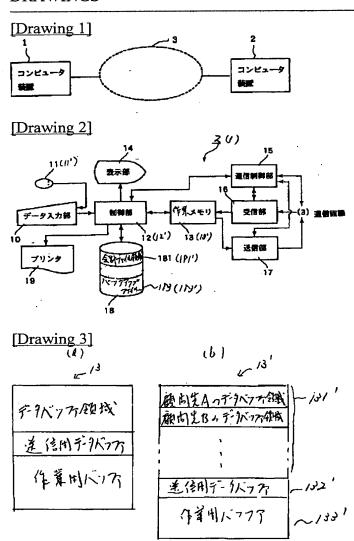
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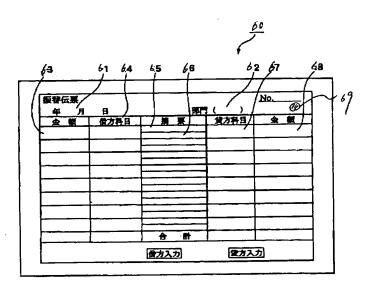
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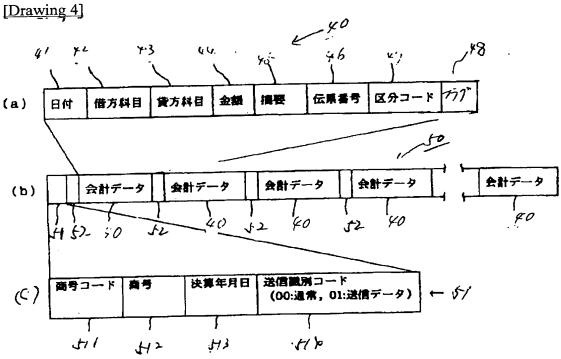
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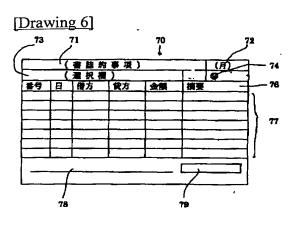
# **DRAWINGS**



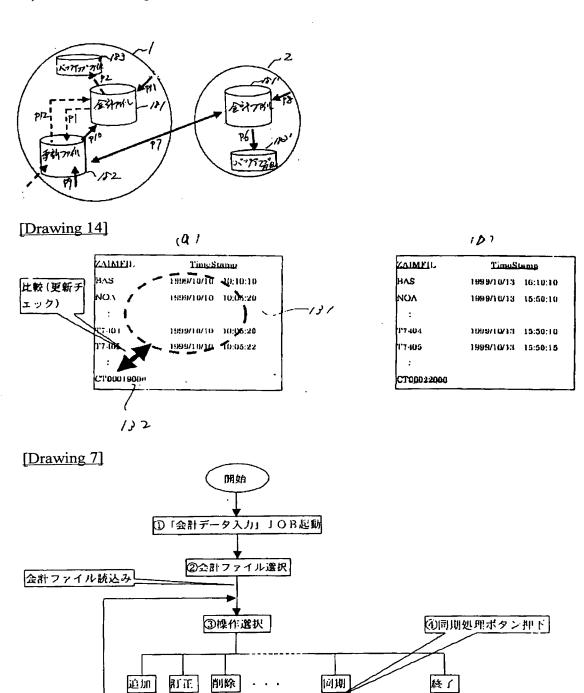
[Drawing 5]







[Drawing 8]

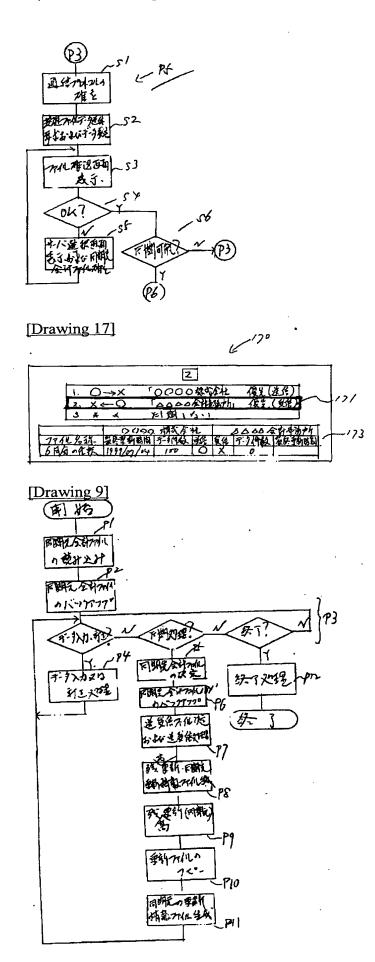


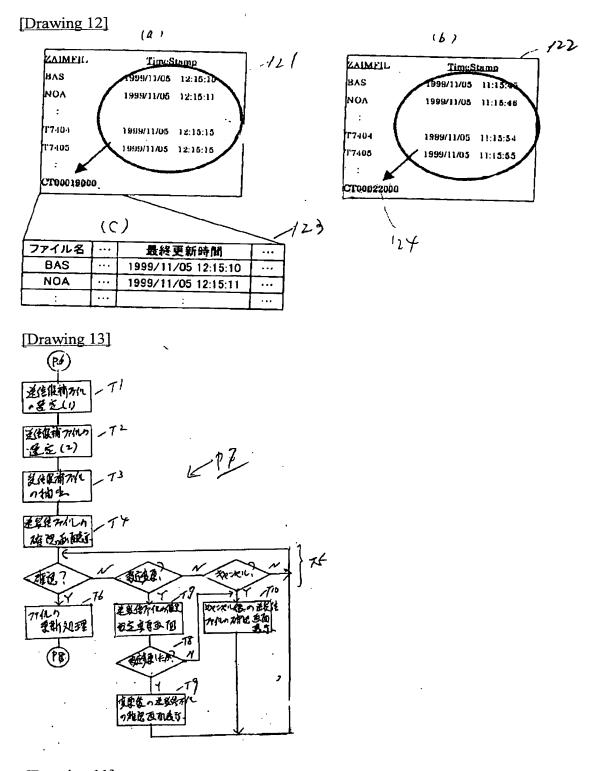
[Drawing 10]

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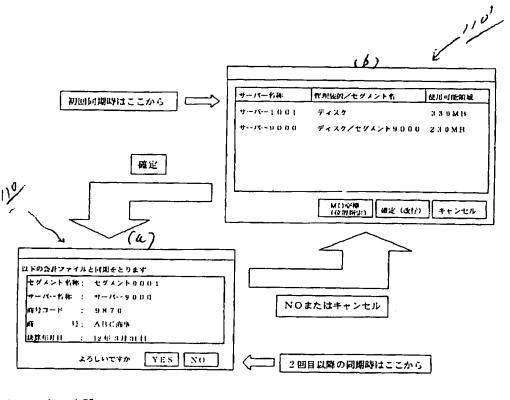
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同期処理実行



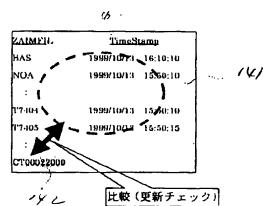


[Drawing 11]

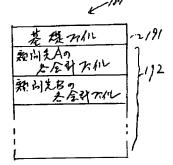


## [Drawing 15]

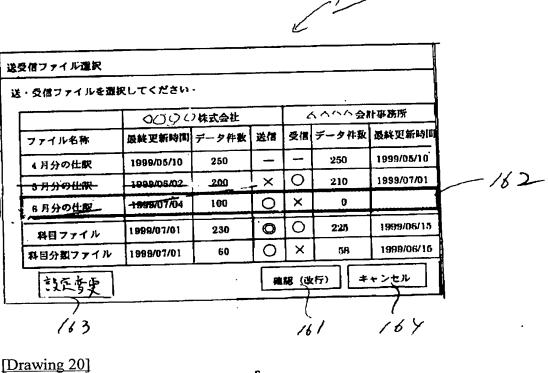
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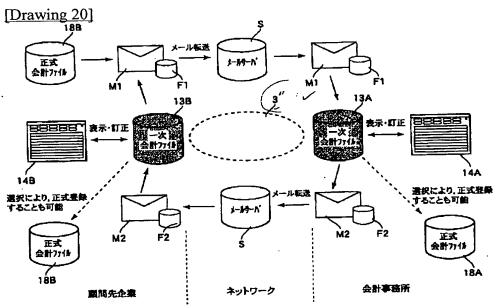


## [Drawing 19]

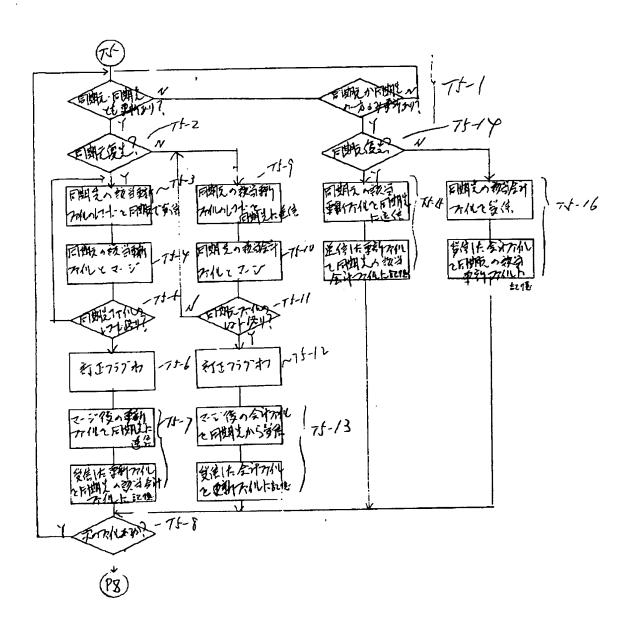


[Drawing 16]





[Drawing 18]



[Translation done.]

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## WRITTEN AMENDMENT

\_\_\_\_\_ [a procedure revision]

[Filing Date] January 28, Heisei 12 (2000. 1.28)

[Procedure amendment 1]

[Document to be Amended] Specification

[Item(s) to be Amended] Whole sentence

[Method of Amendment] Modification

[Proposed Amendment]

[Document Name] Specification

[Title of the Invention] The synchronous approach of data, accounting equipment, an accounting system, and the record medium of the synchronous processing program of accounting data [Claim(s)]

[Claim 1] In the computer system which consists of two or more 2nd computer apparatus in which data transfer is possible according to the 2nd computer apparatus through the 1st computer apparatus which memorized the same data as the data memorized by the 2nd computer apparatus, and this 1st computer apparatus and a communication network,

If there are [ taking the synchronization with the data memorized by one of the arbitration of said 2nd computer apparatus at said 1st computer apparatus, and ] synchronous directions,

The 2nd renewal condition of data memorized by the 2nd computer apparatus with said synchronous directions, The updating condition of the 1st data corresponding to said 2nd data memorized by said 1st computer apparatus is compared. The synchronous approach of the data characterized by updating said the 2nd data and 1st data mutually through said communication network, and making the same the contents of said 2nd data, and the contents of said 1st data based on this comparison result

[Claim 2] The updating condition of said data is expressed with the number of updating data, and the number of updating data of the 2nd data memorized by the 2nd computer apparatus with said synchronous directions is compared with the number of updating data of the 1st data corresponding to said 2nd data memorized by said 1st computer apparatus,

When there are few updating data of said 2nd data than said 1st number of updating data, said 2nd data is transmitted to said 1st computer apparatus through said communication network, and said 1st data is updated by the updating data of said 2nd data,

The synchronous approach of the data according to claim 1 characterized by transmitting said 1st data to said 2nd computer apparatus through said communication network, updating said 2nd data by the updating data of said 1st data, and making the same the contents of said 2nd data, and the contents of said 1st data when there are few updating data of said 1st data than said 2nd number of updating data.

[Claim 3] After said comparison, it is further based on the line speed of said communication network. When the number of updated data in said 2nd data is said below 1st number of updating data, transmit the updated data in said 2nd data to said 1st computer apparatus, and said 1st data is updated. The synchronous approach of the data according to claim 1 or 2 characterized by transmitting the updated data in said 1st data to said 2nd computer apparatus, and updating said 2nd data when the number of updated data in said 1st data is below the number of updated data in said

2nd data.

[Claim 4] It is the synchronous approach of the data in the accounting system which consists of two or more 2nd computer apparatus in which data transfer is possible through the 1st computer apparatus which was equipped with the accounting function and the communications control function, and memorized two or more accounting files according to 2nd computer apparatus, this 1st computer apparatus, and a communication network,

If there are [ taking the synchronization with the accounting file memorized by said 1st computer apparatus in the equipment of the arbitration of said two or more 2nd computer apparatus, and ]

synchronous directions,

The update information of the 1st accounting file corresponding to said 2nd updated file is compared in two or more accounting files for the 2nd computer apparatus with said synchronous directions remembered to be the update information of the 2nd accounting file updated by accounting entry-of-data processing in two or more accounting files memorized by equipment with said synchronous directions by said 1st computer apparatus,

The synchronous approach of the data characterized by updating the contents of said 2nd accounting file, and the contents of the 1st accounting file mutually through said communication network based on said comparison result, and making the same the contents of said 1st accounting file, and the

contents of said 2nd accounting file.

[Claim 5] Said synchronous directions are the synchronous approaches of the data according to claim 4 characterized by being made by hand control in the equipment of the arbitration of said 1st

computer apparatus or said two or more 2nd computer apparatus.

[Claim 6] Said comparison To said 1st computer apparatus The newest update information of each accounting file memorized To this 1st computer apparatus To said 2nd computer apparatus memorized A comparison result with the last update information of two or more corresponding accounting files And the thing to perform based on a comparison result with the file updating information which consists of the last update information of the multiple files memorized by the newest update information and this 2nd computer apparatus of each accounting file memorized by said 2nd computer apparatus The synchronous approach of the data according to claim 4 or 5 by which it is characterized.

[Claim 7] The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through said communication network based on said comparison result Transmit the updated record in the accounting file concerned to the equipment side which has the high accounting file of a priority when said 2nd accounting file and the 1st accounting file are updated for both sides from the equipment which has the low accounting file of a priority, and it merges with the high accounting file of the above-mentioned priority. It carries out by transmitting the accounting file after merge to the equipment which has the low accounting file of the above-mentioned priority, and memorizing to the low file of the above-mentioned priority, It is the synchronous approach of data given in claim 4 characterized by what is performed by memorizing to the low file of a priority which transmits and corresponds to the equipment side which has the low file of a priority from the equipment which has the high accounting file of a priority when only one side of said 2nd file and 1st file is updated thru/or any 1 term of 6. [Claim 8] Said priority is the synchronous approach of data given in claim 4 characterized by making high the direction with many [ each / of the file for a synchronization ] non-synchronized update record thru/or any 1 term of 7.

[Claim 9] Said priority is the synchronous approach of the data according to claim 6 characterized by

the ability to change.

[Claim 10] Renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through said communication network based on said comparison result, The number of updating data of said 2nd accounting file is compared with the number of updating data of said 1st accounting file,

When the number of updated data of said 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of said 2nd accounting file to said 1st computer apparatus through said communication network, and said 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to said 2nd computer

apparatus through said communication network, and memorizing to said 2nd accounting file, When the number of updated data of said 1st accounting file is below the number of updated data of said 2nd accounting file Transmit the updated data of said 1st accounting file to said 2nd computer apparatus through said communication network, and said 2nd accounting file is merged by these updated data. The synchronous approach of data given in claim 4 characterized by what is performed by transmitting the accounting file of merge to said 1st computer apparatus through said communication network, and memorizing to said 1st accounting file thru/or any 1 term of 6. [Claim 11] Renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through said communication network based on said comparison result, Based on the line speed of said communication network, the number of updating data of said 2nd accounting file is compared with the number of updating data of said 1st accounting file, When the number of updated data of said 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of said 2nd accounting file to said 1st computer apparatus through said communication network, and said 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to said 2nd computer apparatus through said communication network, and memorizing to said 2nd accounting file, When the number of updated data of said 1st accounting file is below the number of updated data of said 2nd accounting file Transmit the updated data of said 1st accounting file to said 2nd computer apparatus through said communication network, and said 2nd accounting file is merged by these updated data. The synchronous approach of data given in claim 4 characterized by what is performed by transmitting the accounting file of merge to said 1st computer apparatus through said communication network, and memorizing to said 1st accounting file thru/or any 1 term of 6. [Claim 12] An accounting file memory means to memorize two or more accounting files according to two or more adviser points,

Data input means,

An accounting file updating means to update the accounting file corresponding to the abovementioned adviser point data among the accounting files according to adviser point memorized by said accounting file with the correction data of the adviser point data inputted by this data input means

An update information file-generating means to generate the update information file of the accounting file updated by said accounting file updating means in the accounting file memorized by said accounting file memory means according to the adviser point,

A communications control means to perform communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network,

A transceiver means to deliver and receive the accounting equipment and accounting data of the adviser point under the communications control by this communications control means, A synchronous directions means to perform synchronous processing initiation directions of accounting data to desired adviser point accounting equipment,

Auditing accounting equipment characterized by having a synchronous indication signal transmitting means to transmit a synchronous initiation indication signal to the adviser point accountant's office which had directions through said communication network when the synchronous initiation directions by this synchronous directions means are made.

[Claim 13] An accounting file memory means to memorize two or more accounting files, Data input means.

An update file storage means to memorize the new accounting data and correction accounting data which were inputted by this data input means,

An update information file-generating means to generate the update information file of the file updated by the new input or correction input of accounting data in the file memorized by the accounting file memory means and the update file storage means,

A communications control means to perform communications control for delivering and receiving external accounting equipment and data through a communication network,

A transceiver means to deliver and receive said external accounting equipment and data under the communications control by this communications control means,

If synchronous processing initiation directions are made by synchronous directions means to perform synchronous processing initiation directions of accounting data, and this synchronous directions means It is based on the comparison result of the update information file generated by said update information file-generating means, and the update information file generated by said external accounting equipment side. A transceiver file decision means to determine the file for a synchronization which transmits to said external accounting equipment out of the updated file in the file memorized by said accounting file memory means and the update file storage means, and the file for a synchronization which receives from this external accounting equipment,

Accounting equipment characterized by having the accounting data synchronousr-control means which minds said communication network, transmits or receives the file for a synchronization determined by this transceiver file decision means between said external accounting equipment, and processes accounting data synchronously.

[Claim 14] It has a priority selection decision means determined by said transceiver file decision means to choose and determine a priority based on the number of updating data for every file, Said accounting data synchronousr-control means is accounting equipment according to claim 13 characterized by determining whether to receive the file determined by said transceiver file decision means from whether it transmits to external accounting equipment based on the priority determined by said priority selection decision means, and external accounting equipment.

[Claim 15] Accounting equipment according to claim 13 characterized by having the input screen as which the icon for synchronous directions or the mark was displayed.

[Claim 16] In the accounting system which consists of auditing accounting equipment in which data transfer is possible, and two or more adviser point accounting equipments through a communication network,

Said auditing accounting equipment,

The 1st accounting file memory means which memorizes two or more accounting files according to two or more adviser points,

Data input means,

An accounting file updating means to update the accounting file corresponding to the abovementioned adviser point data among the accounting files according to adviser point memorized by said accounting file with the correction data of the adviser point data inputted by this data input means,

The 1st update information file-generating means which generates the update information file of the accounting file updated by said accounting file updating means in the accounting file memorized by said accounting file memory means according to the adviser point,

The 1st communications control means which performs communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network,

It has the 1st transceiver means which delivers and receives adviser point accounting equipment and accounting data through said communication network under the communications control by this communications control means,

Said two or more adviser point accounting equipments are each,

The 2nd accounting file memory means which memorizes two or more accounting files,

The 2nd data input means,

An updating data storage means to memorize the new accounting data and correction accounting data which were inputted by this 2nd data input means,

The 2nd update information file-generating means which generates the update information file of the file memorized by said the 2nd accounting file memory means and updating data storage means, The 2nd communications control means which performs communications control for delivering and receiving said auditing accounting equipment and accounting data through a communication network,

The 2nd transceiver means which delivers and receives said auditing accounting equipment and accounting data through said communication network under the communications control by this 2nd communications control means,

A synchronous directions means for the adviser points to perform synchronous processing initiation

directions of accounting data,

If there are synchronous processing initiation directions by this synchronous directions means for the adviser points, it is based on the comparison result of the update information file generated by said 2nd update information file-generating means, and the update information file generated by said 1st update information file-generating means. The file for a synchronization which transmits to said auditing accounting equipment out of the updated file in the file memorized by said 1st accounting file memory means, the 2nd accounting file memory means, and the update file storage means, A transceiver file decision means to determine the file for a synchronization which receives from this auditing accounting equipment,

A communication network is minded, the file for a synchronization determined by this transceiver file decision means is transmitted or received between said auditing accounting equipment, and it has the accounting data synchronousr-control means which processes accounting data synchronously, The adviser point accounting equipment with which said synchronous directions were performed Start synchronous processing by the accounting data synchronousr-control means, and transmit and receive the file for a synchronization determined by said transceiver file decision means between the 1st accounting equipment through said communication network with said accounting data synchronousr-control means, and it is updated mutually. The accounting system characterized by making in agreement the contents of the accounting file memorized by the contents of the accounting file of the adviser point concerned memorized by said 1st accounting equipment, and the adviser point accounting equipment concerned.

[Claim 17] Said auditing accounting equipment has a synchronous directions means perform synchronous processing initiation directions of accounting data to desired adviser point accounting equipment, and a synchronous indication signal transmitting means transmit a synchronous initiation indication signal to the adviser point accounting equipment which had directions through said communication network when the synchronous initiation directions by this synchronous directions means are made,

Said adviser point accounting equipment is an accounting system according to claim 12 characterized by starting synchronous processing of the accounting data based on said accounting data synchronousr-control means, when said synchronous indication signal is received from auditing accounting equipment in the first half or there are synchronous processing initiation directions of the accounting data based on said synchronous directions means for the adviser points.

[Claim 18] It is the record medium which recorded the synchronous processing program of the accounting data in the accounting system which consists of auditing accounting equipment in which data transfer is possible, and two or more adviser point accounting equipments through a communication network,

When the synchronous directions with the accounting file of the adviser point concerned memorized by said auditing accounting equipment in said adviser point accounting equipment are detected, The update information of the file updated by the new input or correction input of accounting data in the file memorized by said adviser point accounting equipment is compared with the update information of two or more of said accounting files for adviser point accounting equipments memorized by said auditing accounting equipment,

The contents of the accounting file for the adviser points concerned memorized by the contents and said auditing accounting equipment of the accounting file memorized by said adviser point accounting equipment based on said comparison result are mutually transmitted, received and updated through said communication network,

The record medium characterized by recording the synchronous processing program of the accounting data constituted so that the contents of the accounting file for the adviser points concerned memorized by the contents and said auditing accounting equipment of the accounting file memorized by said adviser point accounting equipment might be made in agreement.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the synchronous processing technique for maintaining the adjustment of the accounting data at the time of performing an accounting entry of data, correction, etc. about an accounting technique on one side or the both sides of a computer

apparatus (terminal of accounting equipment, a personal computer, a workstation, etc., etc.) which had the accounting function etc. through the communication network especially. [0002]

[Description of the Prior Art] As the approach of exchanging accounting data between an accountant's office, its adviser point (the individual or company which entrusted instruction in connection with accounting or accounting by the contract with an accountant's office being said), or this - branch (office) of a nonfinancial company (or the section for accounting and other sections (for example, operating section) in a company), and holding accounting,

\*\* There is the approach of transmitting to the pin center, large computer apparatus with which an accountant's office and the head office (or Accounts and Finance Department gate) were equipped through a permanent communication circuit or the Internet by using as transaction data the accounting data inputted with computer apparatus (client computer), such as the adviser point or a branch (office), on-line (or in-line) using the communication line. By this approach, the accounting file which processed the transaction data received by the pin center, large computer apparatus (server computer) side, and was prepared in the pin center, large computer apparatus side is updated, and accounting is held.

[0003] however -- although it is suitable in this approach's performing the centralized control by online using a dedicated line and a large-sized pin center, large computer in a large-scale accountant's office and the large-scale big business and holding accounting, since it is not the accounting method for which it was suitable for the accountant's office which executes small-scale accounting by proxy to serve also as the consultant to the adviser point which consists of an individual or a small company, and the company without the merit to which the yield of accounting data performs accounting by online few

\*\* There is a method of transmitting the accounting data within a certain period (a day, a week, moon) inputted at the adviser point or a branch through a communication network to an accountant's office or the head office as the transfer approach of the accounting data suitable for the accountant's office and company like the latter. By this approach, the transmitted accounting data can be processed in an accountant's office or the head office, an accounting file can be updated, and accounting can be held.

[0004] However, by the transfer approach of the accounting data of the aforementioned \*\*, it is the adviser point (). Or the timing which performs an accounting entry of data and correction in a branch or a section (it is only hereafter described as the adviser point) is a fixed time of setting at the arbitration or the adviser point within the above-mentioned period. The processing timing by the side of the accountant's office (or the head office or headquarters (it is only hereafter described as an accountant's office)) which processes the fluctuation data collectively sent from the adviser point for every above-mentioned period has the common case of not being in agreement. For this reason, the accounting file of the adviser point will differ from the contents of the accounting file for the adviser points concerned in an accountant's office.

[0005] Therefore, when each accounting file for the adviser points concerned of an accountant's office side computer was updated by the fluctuation data collectively sent from the adviser point at an updating stage, the trouble of having become different contents from the case where fluctuation is not being added to the contents of each accounting file for the adviser points concerned at all from the updating stage last in an accountant's office to this updating stage had produced the contents of each [ these ] accounting file.

[0006] That is, if the contents of the accounting file of the last updating stage in the adviser point are set to C and the transaction file produced by the next updating stage is set to D, the contents of the accounting file of the adviser point updated by transaction-file D will serve as C'=C+D. Moreover, although the contents of the accounting file of the last updating stage in an accountant's office are also C, supposing the correction entry of data by audit processing of an accountant's office etc. will change by the next updating stage, the contents of the accounting master file for the adviser points concerned will serve as C"=C+s. Although a changed part of the accounting file of the adviser point is D when this accounting master file C" is updated by the fluctuation data D, a changed part by the side of an accountant's office may become s+D, and a changed part which must be essentially in agreement in the adviser point and an accountant's office (synchronization) may become an

inequality (asynchronous) by processing timing.

[0007] In order to make in agreement the synchronization of the above-mentioned trouble, i.e., accounting data, an operational moon is conventionally constituted from the adviser point and an accountant's office possible [a lock (protection)]. As delivery and the accounting data of other periods(Mon.) could not input the accounting data (data with "input good [for example,]" in a specific moon unit) of a specific period into the other party at the time of the data communication for accounting data transfer and the accounting data of a specific period were compounded, renewal of data was realized. Moreover, he is trying for an exclusive operation to maintain the adjustment of a synchronous file for the file by which unitary management is carried out in a loose-coupling multi-host configuration system at JP,9-62556,A with the technique of an indication. moreover, "the record concerned contained in this master file copying to a distributed record in the distributed processing system holding the distributed file which copied the master file which a host computer manages, when starting business using that distributed file and the record contained in that distributed file is old than the record with which the master file which a host computer manages corresponds" with the technique of the indication to JP,5-298173,A -- it makes like.

[0008] moreover, with the technique of an indication, to JP,11-161727,A "-- two or more distributed local machine computers make online connection through a host machine and a communication line -- having -- the local machine of these plurality -- the time -- the object for machines, while having a master file In the master synchronous management method of the reservation managerial system with which a host machine is equipped with each master file of a local machine, and the master file which is common in the contents, and changes It has the managed table on which two or more of said local machines and said host machines contain the status flag which manages the condition of each one of master files, respectively. in order to take the synchronization of the master file between said local machines and said host machines, in case file transmission of the updating data is carried out, the status flag which reflected the current condition of a self-machine in the partner machine is transmitted" -- it is made like.

[0009]

[Problem(s) to be Solved by the Invention] However, since there is a side which does different activities, such as "audit", "accounting", and "correction", by the accounting method of the abovementioned \*\* the side which performs "input" of accounting data and "correction" (additional correction, deletion) Since both accounting files serve as a version (version) from which the contents differ, by the method constituted from the adviser point and the accountant's office of the abovementioned former possible [ a lock (protection) ], an operational moon The accounting entry of data in the adviser point, an accountant's office, etc., There was a trouble that there was much constraint of the procedure of management, the procedure in the case of data transfer, especially the procedure at the time of a reply, and it was complicated. This had the trouble that it could become a serious failure in the adviser point and an accountant's office in the common use and the data exchange of accounting data by the Internet (or intranet in a company).

[0010] In addition, the technique of the indication to JP,5-298173,A is the same at the technique which maintains the synchronization of the conventional specific accounting data mentioned above, and the point of "performing an exclusive operation" (that is, both perform a specific file and processing and other files are in agreement at the point to eliminate). Therefore, when there are a file of a configuration of differing in an accountant's office (host computer) an adviser point (distributed system) side like the accounting method of the above-mentioned \*\* and a different file of a version, addition / correction result of data cannot be synchronized about those files.

[0011] Moreover, the technique of the indication to JP,5-298173,A is a technique of updating the contents of the distributed file by the newest contents before distributed file use, and performing the file of the same version by the side of a host computer and a distributed system (version) by synchronous processing of the uni directional to the computer which constitutes a distributed system from a host computer. Therefore, when there are a file of a configuration of differing in an accountant's office (host computer) an adviser point (distributed system) side and a different file of a version like the accounting method of the above-mentioned \*\*, addition / correction result of data cannot be synchronized about those files. Moreover, renewal (additional correction) of the bidirectional data of an adviser point computer (distributed system) and an accountant's office (host

computer) cannot be processed synchronously.

[0012] Moreover, the technique of the indication to JP,11-161727,A A status flag performs file management when the ability not to carry out renewal of online. The accounting method of \*\* which is the technique made identifiable and mentioned the changed file above (that is,) It transmits to the pin center, large computer apparatus with which an accountant's office and the head office were equipped through the permanent communication circuit or the public line network by using as transaction data the accounting data inputted with the computer apparatus distributed by the adviser point or the branch on-line using the communication line. Although it is applicable to the accounting method which performs renewal of data It has this technique, when a status flag performs file management when the ability not to carry out renewal of online in emergency in the system which originally requires the retrieval and updating of data real time like a reservation managerial system, and a status flag is cleared after renewal of online. Therefore, the technique of an indication does not require a sex so much instancy like an accounting data process, and is not suitable for the synchronization of the file in a system which an update process of each file by updating data repeats to predetermined timing. Therefore, like the accounting method of above-mentioned \*\*, renewal of data cannot be performed usually in mutually-independent (that is, off-line), and it cannot apply to the system which synchronizes an accounting file at the time of transfer of data in the adviser point and an accountant's office.

[0013] moreover -- the Internet accounting method developed in recent years -- the forward misjudgment of received data -- although reception of commo data must be immediately performed in order to notify against a law, if each accounting file does not synchronize -- the forward misjudgment of data -- there is a trouble that a law is not made immediately. That is, since there is no other way but conventional to lock take (exclusive operation) when it is going to hold the accounting method of the above-mentioned \*\* using the Internet, there is a trouble that constraint of the trouble in the case of the above-mentioned conventional lock method, i.e., the procedure in the case of data transfer, and the procedure at the time of a reply becomes and complicated.

[0014] Moreover, according to the patent application (Japanese Patent Application No. 11-232649) on August 19 (August 19, 1999), Heisei 11 by the applicant of this application patent Although an accountant's office and the adviser point (or between between this - branch, a host computer, and a client computer) can perform easily transfer of accounting data, and verification of accounting data which received by easy actuation as shown in <u>drawing 19</u> If it can process synchronously at any time in an adviser drawer back or an accountant's office, furthermore, after transmission of data, Without waiting for the reply from a phase hand, updating (additional correction) processing can be performed to a mutual formal file, and it can expect to enable input / correction activity to the original timing of the adviser point or an accountant's office.

[0015] This invention is made in view of the trouble and technical problem of an accounting method of the above-mentioned \*\*, and aims at the synchronous approach, the accounting equipment, and the accounting system distribution of the data which may synchronize without an exclusive operation the data fluctuation result performed off-line between the computer apparatus (accounting equipment) installed in the adviser point and an accountant's office to the timing of arbitration at the time of connection by the communication network.

[0016]

[Means for Solving the Problem] In order to solve the above-mentioned technical problem, the synchronous approach of the data the 1st invention The 1st computer apparatus which memorized the same data as the data memorized by the 2nd computer according to the 2nd computer, In the computer system which consists of two or more 2nd computer apparatus in which data transfer is possible through this 1st computer apparatus and a communication network If there are [ taking the synchronization with the data memorized by one of the arbitration of the 2nd computer apparatus at the 1st computer apparatus, and ] synchronous directions The 2nd data memorized by the 2nd computer apparatus with synchronous directions, The updating condition of the 1st data corresponding to the 2nd data memorized by the 1st computer apparatus is compared. Based on this comparison result, the 2nd data and 1st data are mutually updated through said communication network, and it is characterized by making the same the contents of the 2nd data, and the contents of the 1st data.

[0017] Moreover, the number of updating data of the 2nd data memorized by the 2nd computer apparatus with which the updating condition of data was expressed with the number of updating data, and the 2nd invention had synchronous directions in the synchronous approach of the data invention the above 1st, The number of updating data of the 1st data corresponding to said 2nd data memorized by said 1st computer apparatus is compared. When there are few updating data of the 2nd data than the 1st number of updating data Transmit the 2nd data to the 1st computer apparatus through a communication network, and the 1st data is updated by the updating data of the 2nd data. When there are few updating data of the 1st data than said 2nd number of updating data The 1st data is transmitted to the 2nd computer apparatus through a communication network, the 2nd data is updated by the updating data of the 1st data, and it is characterized by making the same the contents of the 2nd data, and the contents of the 1st data.

[0018] Moreover, it is characterized by determining whether the 3rd invention transmits the 2nd data to the 1st computer apparatus further after a comparison in the synchronous approach of the data the above 1st or the 2nd invention based on the line speed of a communication network, or the 1st data is transmitted to the 2nd computer apparatus.

[0019] Moreover, the 1st computer apparatus which the synchronous approach of the data the 4th invention was equipped with the accounting function and the communications control function, and memorized two or more accounting files according to 2nd computer apparatus, It is the synchronous approach of the data in the accounting system which consists of two or more 2nd computer apparatus in which data transfer is possible through this 1st computer apparatus and a communication network. If there are [ taking the synchronization with the accounting file memorized by the 1st computer apparatus in the equipment of the arbitration of two or more 2nd computer apparatus, and ] synchronous directions The update information of the 2nd accounting file updated by accounting entry-of-data processing in two or more accounting files memorized by equipment with synchronous directions, The update information of the 1st accounting file corresponding to the 2nd file updated in two or more accounting files for the 2nd computer apparatus with the synchronous directions memorized by the 1st computer apparatus is compared. Based on a comparison result, the contents of the 2nd accounting file and the contents of the 1st accounting file are mutually updated through a communication network, and it is characterized by making the same the contents of the 1st accounting file, and the contents of the 2nd accounting file.

[0020] Moreover, 5th invention is characterized by making synchronous directions by hand control in the equipment of the arbitration of the 1st computer apparatus or two or more 2nd computer apparatus in the synchronous approach of the data invention the above 4th.

[0021] The 6th invention is set to the synchronous approach of the data the above 4th or the 5th invention. Moreover, a comparison To the 1st computer apparatus The newest update information of each accounting file memorized To this 1st computer apparatus To the 2nd computer apparatus memorized A comparison result with the last update information of two or more corresponding accounting files And it is characterized by carrying out based on a comparison result with the file updating information which consists of the last update information of the multiple files memorized by the newest update information and this 2nd computer apparatus of each accounting file memorized by the 2nd computer apparatus.

[0022] Moreover, the 7th invention is set to the synchronous approach of the data the above 4th thru/or the 6th one of invention. The renewal of mutual of the contents of the 2nd accounting file, and the contents of the 1st accounting file performed through a communication network based on a comparison result Transmit the updated record in the accounting file concerned to the equipment side which has the high accounting file of a priority when the 2nd accounting file and the 1st accounting file are updated for both sides from the equipment which has the low accounting file of a priority, and it merges with the high accounting file of the above-mentioned priority. It carries out by transmitting the accounting file after merge to the equipment which has the low accounting file of the above-mentioned priority, and memorizing to the low file of the above-mentioned priority. It is characterized by what is performed by memorizing to the low file of a priority which transmits and corresponds to the equipment side which has the low file of a priority from the equipment which has the high accounting file of a priority when only one side of the 2nd file and the 1st file is updated. [0023] Moreover, it is characterized by making high the direction with much [ to the non-

synchronized number of update record / a priority / each / of the file for a synchronization ] 8th invention in the synchronous approach of the data the above 4th thru/or the 7th one of invention. [0024] Moreover, 9th invention is characterized by the ability to change a priority in the synchronous approach of the data invention the above 8th.

[0025] Moreover, the 10th invention is set to the synchronous approach of the data the above 4th thru/or the 6th invention. The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through a communication network based on a comparison result The number of updating data of the 2nd accounting file is compared with the number of updating data of the 1st accounting file. When the number of updated data of the 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of the 2nd accounting file to the 1st computer apparatus through a communication network, and the 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to the 2nd computer apparatus through a communication network, and memorizing to the 2nd accounting file. When the number of updated data of the 1st accounting file is below the number of updated data of the 2nd accounting file Transmit the updated data of the 1st accounting file to the 2nd computer apparatus through a communication network, and the 2nd accounting file is merged by these updated data. It is characterized by what is performed by transmitting the accounting file after merge to the 1st computer apparatus through a communication network, and memorizing to the 1st accounting file.

[0026] Moreover, the 11th invention is set to the synchronous approach of the data the above 4th thru/or the 6th invention. The renewal of mutual of the contents of said 2nd accounting file, and the contents of the 1st accounting file performed through a communication network based on a comparison result It is based on the line speed of a communication network. The number of updating data of the 2nd accounting file, Compare the number of updating data of the 1st accounting file, and when the number of updated data of the 2nd accounting file is below the number of updated data of said 1st accounting file Transmit the updated data of the 2nd accounting file to the 1st computer apparatus through a communication network, and the 1st accounting file is merged by these updated data. It carries out by transmitting the accounting file after merge to the 2nd computer apparatus through a communication network, and memorizing to the 2nd accounting file. When the number of updated data of the 1st accounting file is below the number of updated data of the 2nd accounting file Transmit the updated data of the 1st accounting file to the 2nd computer apparatus through a communication network, and the 2nd accounting file is merged by these updated data. It is characterized by what is performed by transmitting the accounting file after merge to the 1st computer apparatus through a communication network, and memorizing to the 1st accounting file. [0027] Moreover, the auditing accounting equipment of the 12th invention An accounting file memory means to memorize two or more accounting files according to two or more adviser points, An accounting file updating means to update the accounting file corresponding to the abovementioned adviser point data among the accounting files according to adviser point memorized by the accounting file with the updating data of the adviser point data inputted by the data input means and this data input means, An update information file-generating means to generate the update information file of the accounting file updated by the accounting file updating means in the accounting file memorized by the accounting file memory means according to the adviser point, A communications control means to perform communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network, A transceiver means to deliver and receive the accounting equipment and accounting data of the adviser point under the communications control by this communications control means, desired adviser point accounting equipment -- synchronous processing initiation directions of accounting data -- \*\*\*\*\*\*, when the synchronous initiation directions by the synchronous directions means and this synchronous directions means are made It is characterized by having a synchronous indication signal transmitting means to transmit a synchronous initiation indication signal to the adviser point accountant's office which had directions through said communication network. [0028] Moreover, an accounting file memory means by which the accounting equipment of the 13th invention memorizes two or more accounting files, A data input means and an update file storage means to memorize the new accounting data and updating accounting data which were inputted by

this data input means, An update information file-generating means to generate the update information file of the file updated by the new input or updating input of accounting data in the file memorized by the accounting file memory means and the update file storage means, A communications control means to perform communications control for delivering and receiving external accounting equipment and data through a communication network, A transceiver means to deliver and receive external accounting equipment and data under the communications control by this communications control means, If synchronous processing initiation directions are made by synchronous directions means to perform synchronous processing initiation directions of accounting data, and this synchronous directions means It is based on the comparison result of the update information file generated by the update information file-generating means, and the update information file generated by the external accounting equipment side. A transceiver file decision means to determine the file for a synchronization which transmits to external accounting out of the updated file in the file memorized by the accounting file memory means and the update file storage means, and the file for a synchronization which receives from this external accounting equipment, A communication network is minded, the file for a synchronization determined by this transceiver file decision means is transmitted or received between external accounting equipment, and it is characterized by having the accounting data synchronousr-control means which processes accounting data synchronously.

[0029] Moreover, the 14th invention is equipped with a priority selection decision means determined by the transceiver file decision means to choose and determine a priority based on the number of updating data for every file, in the accounting equipment of invention of the above 13th. An accounting data synchronousr-control means is characterized by determining whether to receive the file determined by the transceiver file decision means from whether based on the priority determined by the priority selection decision means, it transmits to external accounting equipment, and external accounting equipment.

[0030] Moreover, 15th invention is characterized by having the input screen as which the icon for synchronous directions or the mark was displayed in the accounting equipment of invention of the above 13th.

[0031] Moreover, the accounting system of the 16th invention is set to the accounting system which consists of auditing accounting equipment in which data transfer is possible, and two or more adviser point accounting equipments through a communication network. 1st accounting file memory means by which auditing accounting equipment memorizes two or more accounting files according to two or more adviser points, An accounting file updating means to update the accounting file corresponding to the above-mentioned adviser point data among the accounting files according to adviser point memorized by the accounting file with the updating data of the adviser point data inputted by the data input means and this data input means, The 1st update information filegenerating means which generates the update information file of the accounting file updated by said accounting file updating means in the accounting file memorized by the accounting file memory means according to the adviser point, The 1st communications control means which performs communications control for delivering and receiving the accounting equipment and accounting data of the external adviser point through a communication network, It has the 1st transceiver means which delivers and receives adviser point accounting equipment and accounting data through a communication network under the communications control by this communications control means. Two or more adviser point accounting equipments The 2nd accounting file memory means which memorizes two or more accounting files, respectively. The 2nd data input means and an updating data storage means to memorize the new accounting data and updating accounting data which were inputted by this 2nd data input means, The 2nd update information file-generating means which generates the update information file of the file memorized by the 2nd accounting file memory means and updating data storage means, The 2nd communications control means which performs communications control for delivering and receiving auditing accounting equipment and accounting data through a communication network, The 2nd transceiver means which delivers and receives auditing accounting equipment and accounting data through said communication network under the communications control by this 2nd communications control means, If there are synchronous processing initiation directions by synchronous directions means for the adviser points to perform

synchronous processing initiation directions of accounting data, and this synchronous directions means for the adviser points It is based on the comparison result of the update information file generated by the 2nd update information file-generating means, and the update information file generated by the 1st update information file-generating means. The 1st accounting file memory means, A transceiver file decision means to determine the file for a synchronization which transmits to auditing accounting equipment out of the updated file in the file memorized by the 2nd accounting file memory means and update file storage means, and the file for a synchronization which receives from auditing accounting equipment, The accounting data synchronousr-control means which minds a communication network, transmits or receives the file for a synchronization determined by this transceiver file decision means between auditing accounting equipment, and processes accounting data synchronously, A preparation and the adviser point accounting equipment with which synchronous directions were performed Start synchronous processing by the accounting data synchronousr-control means, and transmit and receive the file for a synchronization determined by the transceiver file decision means between the 1st accounting equipment through a communication network with an accounting data synchronousr-control means, and it is updated mutually. It is characterized by making in agreement the contents of the accounting file memorized by the contents of the accounting file of the adviser point concerned memorized by the 1st accounting equipment, and the adviser point accounting equipment concerned.

[0032] The 17th invention is set to the accounting system of invention of the above 12th. Auditing accounting equipment When the synchronous initiation directions by synchronous directions means to perform synchronous processing initiation directions of accounting data to desired adviser point accounting equipment, and this synchronous directions means are made, It has a synchronous indication signal transmitting means to transmit a synchronous initiation indication signal to the adviser point accounting equipment which had directions through said communication network. Adviser point accounting equipment If a synchronous indication signal is received from auditing accounting equipment or there are synchronous processing initiation directions of the accounting data based on the synchronous directions means for the adviser points, it will be characterized by starting synchronous processing of the accounting data based on said accounting data synchronousr-control means.

[0033]

[Embodiment of the Invention] [Outline of synchronous processing] <a href="mailto:drawing 1">drawing 1</a> is the outline explanatory view of the accounting system of this invention, and a sign 1 shows the computer apparatus (for example, an auditing computer apparatus (or auditing accounting equipment), a host computer, a host machine) equipped with the accounting function and communications control function with which the accountant's office (or its post of relation, such as the head office or a center) was equipped. Moreover, a sign 2 shows a computer apparatus (accounting equipment) client computer and a client machine equipped with the accounting function and communications control function with which the adviser points (or branch etc.) were equipped, and a sign 3 shows a communication network. Moreover, in <a href="mailto:drawing 1">drawing 1</a>, on explanation, although only one computer apparatus 2 was shown, according to the number of the adviser points, transfer of the accounting data of two or more sets of computer apparatus 2 is usually performed. Moreover, a communication network 3 can use various kinds of communication networks (LAN (a Local Area Network is also included)) besides the Internet.

[0034] By drawing 1, a computer apparatus 2 in the accounting data inputted by the person in charge of the adviser point The accounting data transmitted through the communication network 3 from the computer apparatus 1 are displayed based on a predetermined format (drawing 5, drawing 6). Pass the verification (check) by the person in charge to the displayed accounting data. The need is accepted as a result of verification, and it is correction actuation (an addition, correction, and deletion actuation are said) of accounting data. It is correction processing (an addition) of accounting data based on [when (it is the same hereafter) is performed correction actuation. correction and deletion -- saying (hereafter the same) -- it carries out and the accounting data currently displayed that there are transmitting directions by the person in charge and the accounting data for a display are transmitted to a computer apparatus 1 through a communication network 3. Moreover, a computer apparatus 2 performs synchronous processing with an update file and an accounting file after a series

of inputs of accounting data, and an update process, or at the stage of arbitration in this case (that is, each accounting files of each accounting file of a computer apparatus 2 and a computer apparatus 1 are synchronized). moreover, in the example, since the data synchronous directions by the person in charge of the adviser point perform activation timing of synchronous processing, input data and correction data which were made before it can be gather, and can be synchronize with a day with the sufficient convenience of the adviser point ( automatic -- every predetermined period -- or you may constitute so that it may be make to synchronize after a data input or data correction processing termination).

[0035] Moreover, the computer apparatus 1 has memorized the same multiple files as two or more accounting files of a computer apparatus 2 according to each computer apparatus 2. Moreover, if verification mode is chosen, the record (accounting data) memorized by the update file transmitted through the communication network 3 from the computer apparatus 2 will be edited, and a screen display will be carried out in a predetermined format. As a result of the verification (check) by the accountant's office (or head office) person in charge to whom it is carried out to the displayed accounting data, when correction actuation is performed, correction processing of accounting data etc. is performed according to the contents of correction.

[0036] Moreover, the file which recorded "the number of data of all the files that constitute the accounting data of a self-machine, and the updating hour entry" on the preservation memory of computer apparatus 1 and 2 after the above-mentioned synchronous processing activation (an update information file (drawing 12 (c)) is generated.) By having prepared this update information file, the newest update information of each file recorded on the update information file at the time of synchronous processing activation is compared with the newest update information of the update information recorded for every accounting file, and the transceiver candidate of a file unit can be determined (drawing 16).

[0037] Moreover, the priority of whether to transmit to a computer apparatus 2 previously from a computer apparatus 1 for every transceiver candidate is determined based on the amount of data updated by the newest refix date in each equipment. Moreover, a priority can also be changed by the amount of data or updating time amount.

[0038] Moreover, although synchronous processing is performed per regular file, when a transceiver candidate file overlaps, it processes synchronously not per file unit but per record (accounting data) (when updating according to the individual about a certain file on both sides like [ at the time of performing a correction input etc. by both the transmitting agency and the receiving agency ]). In this case, it is [ or / it merges whether it is merged by the priority (that is, it is determined by the transceiver priority of a file whether the record of a file 1 is merged into a file 2 between a file 1 and a file 2 or the record of a file 2 is merged into a file 1) ]. What is necessary is just to change a priority by modification of a priority according to the amount of data or line speed, since a priority can be changed. Moreover, you may make it change automatically based on the amount of data or line speed regardless of a priority only in merge / or or ] automatically whether merge is carried out.

[0039] Moreover, computer apparatus 1 and 2 carry out archival memory of the hysteresis concerning transmission and reception of accounting data, correction processing of correction, deletion, or an additional input process, and the registration to an accounting file to the hysteresis permanent file on each preservation memory.

[0040] Moreover, the accounting data to transmit are enciphered and it transmits, and after decoding computer apparatus 1 and 2 with a receiving-side computer apparatus, they can also be displayed on an input format (drawing 5, drawing 6) predetermined with the receiving-side computer apparatus. Moreover, the accounting data to transmit are compressed and it transmits, and computer apparatus 1 and 2 can also be displayed on a predetermined input format, after elongating with a receiving-side computer apparatus. Moreover, computer apparatus 1 and 2 may be made to perform authentication for security.

[0041] [The example of a configuration of accounting equipment]

(Adviser point accounting equipment) <u>Drawing 2</u> is the block diagram showing the configuration of one example (adviser point accounting equipment (the 2nd computer apparatus)) of the computer apparatus which constitutes the accounting system of this invention, and accounting equipment 2 is

equipped with the data input section 10, a control section 12, the activity memory 13, a display 14, the communications control section 15, a receive section 16, the transmitting section 17, the preservation memory 18, and the printout section (printer) 19. In addition, you may make it have the pointing device (for example, mouse) 11 of the data input section 10 which instead performs a function (directions (point) function) in part. Moreover, you may make it have OCR (optical character reader (not shown)) which reads accounting data optically, changes and carries out character recognition to an electrical signal, and obtains a character code. [0042] The data input section 10 performs accounting data, a correction data input, a deletion directions input or a message input, etc. In addition, although the data input section 10 does not illustrate, it is equipped with the buffer for data inputs. A control section 12 controls the synchronous processing program execution of the accounting data stored in program storing memory in the processor configuration which consists of circumference circuits, such as CPU, program storing memory, RAM, and a clock, while controlling actuation of nothing and the accounting equipment 2 whole, and performs synchronous processing of the accounting data of this invention. Moreover, execution control of the accounting application program (accounting data input processing is included) stored in program storing memory is performed. Moreover, program storing memory can store the format data for a display besides various programs, icon data, etc. (the storing memory which stores the format data for a display, icon data, etc. may be prepared independently). [0043] For example, if a control section 12 has the synchronous directions by the person in charge, it will perform execution control of a series of synchronous processing by the synchronous processing program of accounting data based on this invention to the data for a synchronization (the update file which is not processed synchronously or its record, the accounting file which is not processed synchronously, or its record is said) memorized by the preservation memory 18. [0044] Similarly, a control section 12 performs the backup process of an accounting file at the time of starting. Moreover, if the synchronous initiation indication signal sent from auditing accounting equipment 1 is received when auditing accounting equipment (the 1st computer apparatus) 1 is constituted so that synchronous directions can be performed so that it may mention later, the backup process of an accounting file will be performed.

[0045] Moreover, if a control section 12 has a data transmission control at the time of synchronous processing, it will take out the data for a synchronization from the preservation memory 18, and they will carry out storage control so that it may memorize to the transmitting data buffer 132. Moreover, in compressing the data for a synchronization etc. and transmitting, it controls a control section 12 to memorize the data for a synchronization which took out the data for a synchronization etc. from the preservation memory 18, and were compressed by the predetermined compression program to the transmitting data buffer 132. Moreover, in enciphering the data for a synchronization etc. and transmitting, it controls a control section 12 to memorize the data for a synchronization which took out the data for a synchronization etc. from the preservation memory 18, and were compressed by the predetermined encryption program to a transmission buffer 132.

[0046] Moreover, if the data for a synchronization based on synchronous processing are received from the auditing accounting equipment 1 side, storage control of the control section 12 will be carried out so that the received data for a synchronization may be memorized to a data buffer 131. Moreover, when the received data for a synchronization are compressed, execution control of the elongation of the compressed data based on an elongation program is carried out with the activity buffer 133, and storage control to the data buffers 131, such as elongated data for a synchronization, is performed. Moreover, when the data for a synchronization etc. are enciphered, the encryption data based on a decode program are decoded, and storage control to the data buffers 131, such as decoded data for a synchronization, is performed.

[0047] Moreover, as the activity memory 13 consists of volatile memory, such as DRAM, and it is shown in drawing 3 (a) It is transmitted from auditing accounting equipment 1 through the update files (journalizing file etc.) and communication network 3 which were obtained by data input processing. The data buffer 131 which memorizes the update file and display-control data which were picked out from the data by which reception was carried out, The transmitting data buffer 132 which memorizes temporarily the data (an update file and display-control data) transmitted to an external device through a communication line 3, and the working-level month buffer 133 are

securable.

[0048] A display 14 displays the accounting data in the update file memorized by the data buffer 131 by the predetermined input format based on display-control data.

[0049] Moreover, the communications control section 15 consists of programs for communications controls, establishes the communications protocol specified in the communication network 3 to connect between auditing accounting equipment 1, and controls transfer of data through a communication network 3.

[0050] A receive section 16 is in confusion to the receive buffer which does not illustrate received data, and in the case of the data of the transmit data method as which received data are specified with the protocol of a communication network 3 like a packet, it is decomposed, it takes out accounting data etc., and it memorizes it to a data buffer 131.

[0051] The transmitting section 17 is taken out from a data buffer 131, and is incorporated to the transmission buffer (= receive buffer) which does not illustrate the transmit data and display-control data which were memorized by the transmitting data buffer 132.

[0052] Moreover, in the case of the data of the transmit data method as which transmit data is specified with the protocol of a communication network 3 like a packet, the transmitting section 17 assembles a packet, stores accounting data etc., transmits to a transmission buffer as data for a synchronization, and sends out to a communication network 3.

[0053] It has the backup file 183 of the accounting file memorized in an accounting file space 181 besides the update file field 182 memorize updating accounting data, such as the accounting file space 181 and the accounting data which were inputted which memorize two or more accounting files which preservation memory 18 consists of rewritable preservation memory of a magnetic disk, an optical disk, or a flash memory, and begin each journalizing file and consist of the various files and the basic file for accounting, and correction data, a history file for historical-data preservation,

[0054] In addition, although the example which constituted the computer apparatus 2 from explanation of above-mentioned drawing 2 as accounting equipment was shown, what was not limited to these, for example, carried the program for accounting (an accounting data input processing facility is included) and the communication control program in the personal computer (personal computer) is sufficient as the computer apparatus which can apply the synchronous processing method of the accounting data of this invention. Moreover, in an accounting data input processing facility, an accounting data input processing program means the program created in order to realize such an accounting data input processing facility here including the function of carrying out correction processing of correction, deletion, an additional input, etc. to the accounting data by which a screen display was carried out to the function (not limited to a key input (for example, the input by OCR may be used)) input and \*\*\*\*\* accounting data, in the predetermined format. [0055] (Auditing accounting equipment) again -- auditing -- accounting -- equipment (the 1st computer apparatus) -- one -- a configuration -- a degree -- stating -- a control section -- 12 -- ' -control action -- an activity -- memory -- 13 -- ' -- and -- preservation -- \*\* -- memory -- 18 -- ' -- a field -- a configuration -- and -- data volume -- removing -- if -- the accounting equipment 2 of drawing 2, and the equipment of the same configuration -- \*\*\*\*\*.

[0056] Control-section 12' controls the synchronous processing program execution of the accounting data stored in program storing memory in the processor configuration which consists of circumference circuits, such as CPU, program storing memory, RAM, and a clock, while controlling actuation of nothing and the accounting equipment 2 whole, and performs synchronous processing of accounting data based on this invention. Moreover, execution control of the auditing application program (accounting data input processing is included) stored in program storing memory is performed. Moreover, program storing memory can store the format data for a display besides various programs, icon data, etc. (the storing memory which stores the format data for a display, icon data, etc. may be prepared independently).

[0057] For example, if control-section 12' has a connection request based on synchronous processing from adviser point accounting equipment 2, it will perform execution control of a series of synchronous processing by the synchronous processing program of accounting data based on this invention to the data for a synchronization (the accounting file for the adviser points for [ which is

not processed synchronously ] a synchronization or its record is said) memorized by preservation memory 18'. In addition, if control-section 12' has the synchronous directions by the person in charge when it is constituted so that auditing accounting equipment 1 can perform synchronous directions, it is sent out to the accounting equipment 2 of the adviser point specified through the transmitting section 17 at the time of synchronous directions of a synchronous initiation indication signal. [0058] Moreover, control-section 12' performs the backup process of the accounting file of the adviser point first specified that synchronous processing is started. In addition, when it constitutes so that auditing accounting equipment 1 can perform synchronous directions as mentioned above, the backup process of the accounting file of the adviser point specified at the time of synchronous directions is performed.

[0059] Moreover, if control-section 12' has a data transmission control at the time of synchronous processing, it will take out the data for a synchronization from preservation memory 18', and they will carry out storage control so that it may memorize to the transmitting data buffer 132. Moreover, in compressing the data for a synchronization etc. and transmitting, it controls control-section 12' to memorize the data for a synchronization which took out the data for a synchronization etc. from preservation memory 18', and were compressed by the predetermined compression program to the transmitting data buffer 132. Moreover, in enciphering the data for a synchronization etc. and transmitting, it controls a control section 12 to memorize the data for a synchronization which took out the data for a synchronization etc. from preservation memory 18', and were compressed by the predetermined encryption program to a transmission buffer 132.

[0060] Moreover, if the data for a synchronization based on synchronous processing are received from the specified adviser point accounting equipment 2 side, storage control of control-section 12' will be carried out so that the received data for a synchronization may be memorized to a data buffer 131. Moreover, when the received data for a synchronization are compressed, execution control of the elongation of the compressed data based on an elongation program is carried out with the activity buffer 133, and storage control to the data buffers 131, such as elongated data for a synchronization, is performed. Moreover, when the data for a synchronization etc. are enciphered, the encryption data based on a decode program are decoded, and storage control to the data buffers 131, such as decoded data for a synchronization, is performed.

[0061] Activity memory 13' consisted of volatile memory, such as DRAM, and is equipped with bigger memory space than the activity memory 13 of adviser point accounting equipment 2. Activity memory 13' is transmitted from each adviser point accounting equipment 2 through the correction journalizing file and communication network which were obtained by auditing data input processing, as shown in drawing 3 (b). Data buffer field 131' which memorizes the update file taken out from the data by which reception was carried out, Transmitting data buffer 132' and working-level month buffer 133' which memorize temporarily the data (an update file, transmitting notice data, and display-control data) transmitted to adviser point accounting equipment 2 through a communication network 3 are securable. Moreover, data buffer field 131' is divided into the data buffer field classified by adviser point which memorizes the primary accounting file transmitted by E-mail through the Internet 3 from two or more adviser point accounting equipments 2 according to the adviser point.

[0062] preservation -- memory -- 18 -- ' -- a magnetic disk -- an optical disk -- or -- a flash memory -- etc. -- rewriting -- being possible -- preservation -- memory -- from -- becoming -- each -- journalizing -- a file -- beginning -- accounting -- \*\* -- various kinds -- a file -- a foundation -- a file -- from -- becoming -- plurality -- accounting -- a file -- memorizing -- accounting -- a file space -- 181 -- ' -- storing -- having -- \*\*\*\* -- each -- an adviser -- the point -- each -- accounting -- a file -- inside -- a synchronization -- an object -- an adviser -- the point -- accounting -- a file -- backing up -- a backup file -- 183 -- ' -- historical data -- preservation -- \*\* -- a history file -- etc. etc. -- having -- \*\*\*\* (drawing 19). In addition, you may make it prepare a history file in separate preservation memory.

[0063] Moreover, although the example which constituted the computer apparatus 1 from abovementioned explanation as auditing accounting equipment was described, what was not limited to these, for example, carried the program for accounting (an accounting data input processing facility is included) and the communication control program in the personal computer (personal computer) is sufficient as the computer apparatus which can apply the synchronous processing method of the accounting data of this invention, and what carried the accounting data input processing program and the communication control program in the personal computer is sufficient as it.

[0064] (Accounting file) the fundamental data (a trade name code (branch code) --) which need an accounting file on the accounting of for example, an adviser point company The basic file which stored a trade name (branch name), the number of terms, a fiscal period, and ..., The subject file which registered the exception of account headings and a subject code, and the debtor and the credit side etc., A subject classification file, the journalizing file which carried out fixed period (this example moon unit) storing of the accounting data (= journalizing data) (the journalizing file for January) There are a journalizing file, ... (drawing 16), various ledger files, various supplementary files, a control file for February, etc., and with adviser point accounting equipment 2, as mentioned above, each accounting file is memorized to accounting file space 181' secured to the preservation memory 18.

[0065] moreover -- auditing accounting equipment 1 -- accounting files 192-1-1,192-1-2 other than basic file 191 ... To 192-2-1,192-2-2 and ... (drawing 19), the adviser point A The file identification code for identifying adviser point identification code and accounting file types, such as a trade name code, respectively is independently given to each accounting file possible [management of an accounting file]. B and .. Each accounting file stored in accounting file space 181' is classified according to adviser point identification code and a file identification code. Moreover, fundamental data required on the accounting of an adviser point company which mentioned above are stored in the basic file 191 per adviser point.

[0066] (Update file) An update file is a file memorized to the update file field 182 of adviser point accounting equipment 2, and is a journalizing file (created by the dealings moon of the inputted accounting data (new accounting data and correction input data) monthly, respectively) inputted and

journalized by accounting data input processing.

[0067] Moreover, under the accounting file memorized by the accounting equipment 1 by the side of an accountant's office (computer apparatus) so that it may mention later in synchronous processing, The updating accounting file in which the correction input was carried out by audit or verification of an accountant's office and which was transmitted to adviser point accounting equipment (computer apparatus) 2 as an accounting file by which correction processing was carried out is also treated as an update file (that is,). In synchronous processing, the accounting file of the adviser point concerned updated with audit accounting equipment 1 is also copied to the update file field 181.

[0068] Moreover, among the accounting files of auditing accounting equipment 1, a correction input is carried out by audit or verification of an accountant's office, it is transmitted to the adviser point accounting equipment 2 correspond as a record (updated record) of the accounting file by which correction processing was carried out, and the update file (journalizing file) of the adviser point and the merged result also become with an update file so that it may mention later in synchronous processing.

[0069] <u>Drawing 4</u> is drawing showing accounting data and one example of a transmitting file, and the explanatory view in which <u>drawing 4</u> (a) shows one example of accounting data (record), and <u>drawing 4</u> (b) shows the structure of a transmitting file, and <u>drawing 4</u> (c) are drawings showing the configuration of the control data stored in the head of a transmitting file.

[0070] The accounting data (record) 40 consist of the date column 41, the debit subject column 42, the credit-side subject column 43, the amount-of-money column 44, a space for notes 45, the slip number column 46, partition code field 47, and the correction flag column 48 by drawing 4 (a), and the journalized dealings are memorized. In addition, if correction (additional correction) of data is performed, a correction flag (additional = "1", correction = "2", deletion = "3") will be written in the flag column 48.

[0071] Moreover, it is inputted by the personal computer carried in the synchronous processing program, the accounting program or accounting data input processing program, and communication control program of the accounting data which realize synchronous processing of accounting data based on accounting equipment 2 (1) or this invention, and journalizing processing is carried out by the accounting data input processing facility (program), the accounting data 40 are memorized by the data buffer 131 of the activity memory 13, and a screen display is carried out by the input format as

shown to drawing 5 and drawing 6.

[0072] Moreover, correction data are added to the correction part of the accounting data which correspond by the accounting data input processing facility if correction data are inputted. If deletion directions are performed, a deletion directions data number (line count) will be held to the working-level month buffer 133, and deletion displays (discriminating display of inverse video etc.) will be performed to the accounting data of relevance. A check of a person in charge Waiting, A deletion flag "3" is written in the flag column 48 of the accounting data which correspond if there is a check input (when a deletion flag is attached, not displayed on a display 14).

[0073] Moreover, the transmitting file 50 consists of a group of two or more transmit data with which one control data 51, display-control data 52, and the accounting data 40 were matched with 1 to 1 by drawing 4 (b). Moreover, the display-control data 52 consist of a pointer in which the display-position relation on the screen of corresponding accounting data (context) is shown including the identification code which identifies the transmitting file 50 so that control data 51 may be mentioned later (for example, let the date and slip number of accounting data which are displayed one line ago be a pointer.). In this case, the slip number of the pointer of top accounting data is set to 0

[0074] The transmitting file 50 is assembled by the transmitting file (transmit data) data format specified by the protocol of a communication network etc. at the time of transmission, and is sent out to a communication network 3 from the transmitting section 17. Therefore, the maximum number of the group of the transmit data which consists of display-control data 52 and accounting data 50 changes with transmitting file sizes (data length) specified by a protocol etc. Moreover, each data stored in a transmitting file at the time of transmission can be enciphered or (with no compression) compressed, and the transmitting file 50 can also be generated.

[0075] Moreover, the control data consists of drawing 4 (c) so that the transmitting identification code 514 other than bibliography-data like the trade name code 511, a trade name 512, and the accounting date 513 may be stored. Bibliography-data like the trade name code 511, a trade name 512, and the accounting date 513 are displayed on the upper column of the display format in the case of a screen display etc. Moreover, the transmitting identification code 514 takes the value of either usual [ "usual / 00:usual (condition of not transmitting) /" ], or "01:transmission." Transmitting-side equipment sets the transfer identification code 514 to "01" at the time of transmission, creates a transmitting file and transmits it. The control section 12 of receiving-side equipment investigates the transmitting identification code 514 of the control data 51 in the transmitting file 50 which received, and when it is "01", it starts concrete processing of interactive processing between equipment of the accounting data of this invention.

[0076] Drawing 5 is drawing showing one example of the accounting data input format displayed on a display screen, and is drawing showing the example of a cross slip input screen. The trade date input column 61 into which the cross slip input screen 60 inputs a trade date (a year, the moon, and day) by drawing 5, The heading column which formed the management partition input column 62 which inputs the management partition for controlling accounting per a section, a place of business, and project, The input row column which prepared the input row which consists of the credit-side amount-of-money input column 68 which inputs the debit amount-of-money input column 63 which inputs the debit amount of money, the debit subject input column 64 which inputs a debit subject, the debit summary input column 65, the credit-side summary input column 66, the credit-side subject input column 67 that inputs a credit-side subject, and the debit amount of money the number of predetermined lines, It has the sum total column and the carbon button 69 (the icon or mark) for synchronous directions which display the sum total of the debit amount of money and the credit-side amount of money. Moreover, although not illustrated in the heading column, the icons (carbon button etc.) or mark for directing the display of accounting data, correction, deletion, additional input, printing, termination, etc. is displayed.

[0077] The head office, a branch, works, a section, a project, contracted work, etc. are the partitions prepared on accounting control, and a management partition is classified beforehand and coded. Moreover, if the code which coded the management partition, the debit subject, and the credit-side subject, respectively is inputted into the management partition input column 62, the debit subject input column 64, and the credit-side subject input column 67 at the time of an input, it will be

changed into an alphabetic character by the translation table with which accounting equipment 100 was equipped beforehand, and character representation will be carried out to each input column. In addition, it may be made to carry out a direct alphabetic character input on a management segment name, a debit subject, and a credit-side subject at the management partition input column 62, the debit subject input column 63, and the credit-side subject input column 67 at the time of an input. [0078] Moreover, the debit summary input column 65 is the input column which inputs the summary which shows the contents of dealings of the debtor who consists of the debit amount-of-money input column 63 and the debit subject input column 64, the credit-side summary input column 66 is the input column which inputs the summary which shows the contents of dealings of the credit side who consists of the credit-side subject input column 67 and the amount-of-money input column 68, and the alphabetic character input of the summary is carried out.

[0079] Moreover, although the debit summary input column 65 was made into the upper case by each input row and the credit-side summary input column 66 has been arranged as the lower berth in this example Arrangement of the debit summary input column 65 and the credit-side summary input column 66 is not limited to this, but it is only that the screen size of a display 14 receives the constraint on a design. For example, you may arrange to a single tier so that each other may be adjoined in the debit summary input column 65 and the credit-side summary input column 66, and the credit-side summary input column 66 may be arranged to the degree of the credit-side amount-of-money input column 68.

[0080] Moreover, although the debit subject input column 64 has been arranged to the degree of the debit amount-of-money input column 63 in this example, you may make it arrange the debit amount-of-money input column to the degree of the debit subject input column 64. Moreover, although the number of input rows was made into eight lines in the example of <u>drawing 5</u>, it is not limited to this but should form only the number in which a design top is possible.

[0081] Moreover, the slip number input (display) column which inputs a slip number into the cross slip input screen 60 (or automatic display) may be prepared (in the example of <u>drawing 5</u>, prepared in the upper right corner). Moreover, two or more management partition input columns 62 may be formed according to a management partition. Moreover, you may make it prepare the complementary code input column in the debit subject input column 64 and the credit-side subject input column 67. Moreover, at the time of an input, the cursor which it shows to an input part is displayed.

[0082] Drawing 6 is drawing showing other examples of the accounting data input format displayed on a display screen. The column 71 which displays bibliographic items which acquired the accounting data input format 70 from the received control data 61 by drawing 6, such as a firm name and an accounting fiscal year, The selection column 73 to which the directions of the moon display column 72 which displays the dealings moon, the display of accounting data, correction, deletion, an additional input, printing, termination, etc. are indicated by the icon, and directions selection by the person in charge is carried out, The carbon button 74 (an icon or mark) for synchronous directions, the data name display column 76 and the accounting data display column 77, and the guidance message indicator column 78 and the input column 79 are prepared. [0083] In the data name display column 76, moreover, the line-number column, the date column, the debit subject column, the credit-side subject column, The amount-of-money column and a space for notes are prepared, and the date data of the accounting data which the data display column 77 keyed, or the received accounting data (drawing 4 (a)) are displayed on the location corresponding to the date column. When accounting data are a debit subject, when a debit subject name is [ accounting data ] the credit-side subject column, a credit-side subject name is displayed on the location corresponding to the debit subject column by the location corresponding to the credit-side subject column, and amount-of-money data are performed in the location corresponding to the location corresponding to the amount-of-money column in summary data. Moreover, since the context at the time of a display is connected with corresponding display-control data, one line can be distributed sequentially from [ each ] the best column of the data display column 77, and each accounting data is displayed. Moreover, also when there are more accounting data of the activity memory 132 than the line count of the data display column 77, the accounting data which are scrolled up and down by the scrolling key stroke or point actuation of a scroll button which is not illustrated, and are not

Page 20 of 41

displayed can be displayed. In addition, "the accounting data for a display" as used in this specification means a relating eclipse and the accounting data which can be displayed by scrolling for order with display-control data.

[0084] Moreover, the actuation guidance message and warning message at the time of a data input or a data correction input are displayed on the guidance message indicator column 78. Moreover, the input column 79 is a column as which the inputted data are displayed, and the character string changed into the character string or name inputted by confirmation operation is displayed on the display column of a cursor location.

[0085] Journalizing processing is carried out and the accounting data inputted from the cross slip input screen of above-mentioned drawing 5 or the input screen of drawing 6 are stored in an accounting data file. Moreover, at the time of correction processing of accounting data or verification, the accounting data stored on these input screens at the accounting data file can be displayed.

[0086] [Synchronous processing]

(Example of the user operating procedure at the time of data input processing) <u>Drawing 7</u> is a flow chart which shows one example of the user actuation at the time of data input processing (user interface), and synchronous processing will be performed if \*\* described below is operated.

- \*\* A person in charge starts accounting equipment 2 (or accounting equipment 1), and choose an accounting data input job (JOB) from the displayed job selection menus.
- \*\* Next, since an accounting file selection menu is displayed, a person in charge chooses the accounting file (for example, journalizing file of xx moon) of a processing object (reading of the accounting file for a synchronization is started by this actuation (<u>drawing 9</u> (process P1)).).
- \*\* A person in charge chooses the actuation selection carbon buttons (an "input", correction ("an addition", "correction", "deletion"), "a synchronization", "termination" carbon button, etc.) displayed on the displayed input screen (drawing 5 or drawing 6).
- \*\* If a person in charge pushes a "synchronous" carbon button (<u>drawing 9</u> (process P4) and synchronous processing are performed.)
- \*\* A synchronization place selection screen is displayed at this time, and a synchronization place can be chosen (it is not necessary to choose (in this case, only in case of confirmation operation)).
- \*\* Similarly, since the check screen of the file of the synchronization place which takes a synchronization is displayed, check again.
- \*\* Since the original input screen is displayed after synchronous processing is completed, return to \*\*, perform actuation selection and operate correspondence. Moreover, in terminating an accounting data input job, it chooses "termination" carbon button.

[0087] (Synchronous processing process) It is the explanatory view showing the data flow at the time of synchronous processing when drawing 8 uses a synchronizing agency as adviser point accounting equipment 2 and uses a synchronization place as auditing accounting equipment 1, and drawing 9 is a process chart at the time of the synchronous processing at the time of using a synchronizing agency as adviser point accounting equipment 2, and using a synchronization place as auditing accounting equipment 1. In addition, a continuous line shows the data flow at the time of synchronous processing by drawing 8, and a broken line shows the data flow in other processings. Moreover, the notations P1-P12 of drawing 8 show the process notation of drawing 9. Moreover, for pretreatment and P4, input process, and P5-P11 are [P1 and P2 / synchronous processing and P12] the processes of a post process in drawing 8 and drawing 9.

[0088] Process P1: (reading of a synchronizing agency file)

If a person in charge chooses an accounting file with the accounting file space 181 with the accounting equipment 2 of a synchronizing agency by \*\* of <u>drawing 7</u>, the selected accounting file will be read into the data buffer 131 and the working-level month buffer 133 of the activity memory 13.

[0089] Process P2: (backup of a synchronizing agency file)

Next, it transmits to a backup file 183 and accounting equipment 2 memorizes each accounting file in the accounting file space 181 (backup).

[0090] Process P3: (processing selection)

A person in charge points at the selection carbon button of an input screen etc. with a mouse 11, and

it is a "data input" (if new input and correction (additional correction, deletion) processing is chosen, it will change to P4, if "a synchronization" is chosen, it will change to P5, and if "termination" is chosen, it will change to P12.).

[0091] Process P4: (data input processing etc.)

If data input processing is chosen by \*\* of drawing 7, the additional input of data is attained, and the inputted accounting data will be written in the buffer 131 for a display, and will be displayed on the display column of an input screen. Journalizing processing will be carried out and input data will be memorized by the activity buffer 133, if a person's in charge confirmation operation is made. Moreover, if correction processing is chosen, the contents of the data buffer 131 will be added by the input result, and a correction result will be displayed on an input screen. Moreover, an input result is written in the working-level month buffer 133. After a series of data inputs finish, the accounting data written in the working-level month buffer 133 are memorized to the update file field 182 as an update file (period pointed out at the time of an input) (journalizing file), and a data buffer 131 and the working-level month buffer 133 are cleared, return to P3, and wait for the next processing selection actuation.

[0092] Process P5: (selection of synchronous processing, and decision of a synchronization place) If a person in charge points at the synchronous carbon button (69 74) on an input screen (drawing 5, drawing 6) with a mouse 11 by \*\* of drawing 7, synchronous processing will be started and accounting equipment 2 will establish a communications protocol with the accounting equipment 1 of a synchronization place. And the accounting file of a synchronization place is determined by the actuation shown in the flow chart of below-mentioned drawing 10 (drawing 10, drawing 11). [0093] Process P6: (backup of a synchronization place accounting file)

If the accounting file (accounting file of the adviser point at which synchronous directions were performed) of a synchronization place is determined in the above-mentioned process P5, accounting equipment 2 will transmit the adviser point identification code and the file identification code of an accounting file which were determined to accounting equipment 1. It will transmit to backup file 183', and accounting equipment 1 will memorize the accounting file (accounting file by which data are updated by synchronous processing) concerned of accounting file space 181' related [ which is related and accounting-files ], if adviser point identification code and a file identification code are received (backup).

[0094] Process P7: (decision and transmitting and receiving processing of a transceiver file and a priority)

Moreover, after selecting a transceiver file candidate in actuation as shown in the flow chart of drawing 13 mentioned later and the accounting equipment 2 of a synchronizing agency determines the priority of whether to transmit a file from the transmission place which transmits a file previously from decision [ of a transceiver file ], and transmitting origin for every file, it carries out the transmission and reception and the update process of a transceiver file which were determined (drawing 13 - drawing 18).

[0095] Process P8: (renewal of the balance and update information file creation of a synchronization place)

Renewal of the balance of each accounting file which was updated by the transmitting and receiving processing of the above-mentioned process P7 in the accounting file memorized by accounting file space 181' of a synchronization place (accounting equipment 1) and which is related [ which is related and accounting-files ] carries out, and the update-information file (CTyyyyy) collected the renewal records of the newest of each accounting file after an update process (updating time, the number of updating data, etc.) creates.

[0096] Process P9: (renewal of the balance of the accounting file of a synchronizing agency) Renewal of the balance of each accounting file which was updated by the transmitting and receiving processing of the above-mentioned process P7 in the accounting file memorized to the update file field 183 of the synchronous origin (accounting equipment 2) updated by the transmitting and receiving processing of the above-mentioned process P7 and which is related [ which is related and accounting-files ] is performed.

[0097] Process P10: (copy to the accounting file (synchronizing agency) of an update file) In the above-mentioned process P9, each file of the update file field 181 by which renewal of the

balance was carried out is copied to the accounting file to which the accounting file space 181 of a synchronizing agency corresponds, and is updated.

[0098] Process P11: (synchronizing agency update information file creation)

The update information file (CTxxxxx) which collected each renewal records of the accounting file newest broken in the above-mentioned process P11 is created.

[0099] Process P12: (post process)

If "termination" carbon button is pointed at by the input screen of accounting equipment 1, after an accounting file will write and performing post processes, such as return processing, data input processing is ended.

[0100] [Selection decision of selection [ of synchronous processing ] and synchronization place accounting file] drawing 10 is a flow chart which shows one example of synchronization place accounting file decision actuation of the process P5 of drawing 9. Moreover, drawing 11 is drawing showing one example of the screen for synchronization place accounting file decision, drawing 11 (a) shows an example of a synchronization place accounting file check screen, and drawing 11 (b) shows an example of a server selection screen.

[0101] Step S1: (establishment of a communications protocol)

If a synchronous carbon button is pointed at, the control section 12 of the accounting equipment 2 of a synchronizing agency will control the communications control section 15, and will establish a communications protocol with a synchronization place (accounting equipment 1).

[0102] Step S2: (sending out and requested data reception of a basic file data Request to Send) If a control section 12 sends out the Request to Send of the information (a trade name code, a trade name, accounting date, etc.) in the storing location specified last time in the basic file of the preservation memory (18') of a synchronization place (accounting equipment 1) to a synchronization place through the transmitting section 17 and requested data is received from a synchronization place through a receive section 16, it will change to step S3.

[0103] Step S3: (information reception and display of a synchronization place accounting file check screen)

A control section 12 displays \*\*\*\*\* which received at the above-mentioned step S2 on a display 14 as a file check screen 110 like <u>drawing 11</u> (a), and demands the check of a synchronization place accounting file from a user.

[0104] Step S4: (check judging)

A control section 12 will change to step S6 by considering this accounting file as a synchronization place accounting file, if a user points at a confirmation button (YES) with a mouse 11. Moreover, if a negative carbon button (NO or cancellation) is pointed at, it will change to step S5.

[0105] Step S5: (server selection screen display etc.)

When a negative carbon button is pointed at by the above-mentioned step S4 or a phase hand cannot be specified in the time of the synchronous first time etc., after displaying server selection screen 110' as shown in <u>drawing 11</u> (b) and making a synchronization place accounting file decide, it changes to step S3.

Step S6: (judgment of whether to be able to synchronize)

A control section 12 transmits the adviser point identification code of the accounting file determined to the synchronization place through the transmitting section 17, a file identification code, and the notice demand of a condition. When the file is using it from a synchronization place or the condition signal (synchronous impossible signal (busy signal)) meaning the conditions which cannot synchronize in addition to this being set up is received, synchronous processing is terminated and it returns to a process P3. Moreover, when it can synchronize (signal which can be synchronized), it changes in a process P6.

[0106] [Generation of update information file] drawing 12 is the explanatory view of the generation method of an update information file. It understands [ whether after synchronizing last time, which file is updated at the time of a next synchronization by extracting the renewal period of the newest of the file which constitutes each accounting file from a synchronizing agency and synchronization place equipment etc. from the update information of each file, and generating an update-information file, respectively, and ] immediately after updating an accounting file with mutual synchronizing agency (accounting equipment 2) and synchronization place (accounting equipment 1) by

synchronous processing, and synchronizing it.

[0107] In addition, the time stump (time information) memorized by the update information of each file is set from the system clock of each equipment (.). (drawing 12 (a) shows the update information of the update file by the side of accounting equipment 2, and drawing 12 (b) shows the update information of the accounting file by the side of accounting equipment 1) Thereby, even when the system clock of a synchronization place is different the synchronizing agency, the decision of an exact transceiver candidate file is attained.

[0108] Moreover, although the example of <u>drawing 12</u> showed only what is the synchronous origin generated from the update information 121 of <u>drawing 12</u> (a) as an update information file 123, and is generated ((it expresses with the notation under the left corner of the update information of <u>drawing 12</u> (a) "CT00019000")), [ <u>drawing 12</u> (c) and ] The update information file 124 (expressed with the notation "CT00022000" under the left corner of the update information 122 of <u>drawing 12</u> (b)) (similarly generated from the update information of each file of <u>drawing 12</u> (b).) of a synchronization place

[0109] The decision of a transceiver file and [transmitting-and-receiving-processing] drawing 13 are flow charts which show one example of the decision of a transceiver file, and updating (synchronization) actuation of the accounting file by transmitting and receiving processing. Moreover, drawing 14 is the explanatory view of the transmitting candidate file selection approach, and drawing 15 is the explanatory view of the receiving candidate file selection approach. Moreover, drawing 16 is drawing showing one example of a transceiver file check screen, and drawing 17 is drawing showing one example of the screen for a priority change of a transceiver file. [0110] Step T1: (selection of the transmitting candidate file updated by the data input) After the backup process of the synchronization place accounting file of the process P5 of drawing 9 finishes, a control section 12 considers the file which updated by carrying out a data input by the synchronizing agency (accounting equipment 2) as a transmitting candidate file. That is, from the internal-storage variable of a data input, since the file (updating journalizing file) updated after starting this data input before pointing at the synchronous carbon button (a new data input and/or correction input) can be specified, when these files are updated, it adds to a transmitting candidate file.

[0111] Step T2: (selection of the transmitting candidate file by the comparison of synchronizing agency update information)

Furthermore, a control section 12 compares the update information (drawing 14 (a)) of each file of the accounting file of a synchronizing agency with the update information memorized by the update information file 132, and the file is carried out as a file which had updating in the file whose time amount does not correspond as a transmitting candidate file (candidate file which transmits to a synchronization place from a synchronizing agency).

[0112] Step T3: (selection of the receiving candidate file by the comparison of synchronization place update information)

Next, a control section 12 requires transmission of the update information (drawing 14 (a)) of each file of a synchronization place accounting file, and the update information memorized by the update information file from accounting equipment 1. The update information (drawing 14 (b)) of each file of the synchronization place accounting file which received is compared with the update information memorized by the update information file 142. Let the file be a receiving candidate (candidate file which receives from a synchronization place to a synchronizing agency) as a file which updated all the files whose time amount does not correspond.

[0113] Step T four: (list display of a transceiver candidate file)

A control section 12 classifies into a transmitting candidate file and a receiving candidate file the receiving candidate file extracted by the transmitting candidate file and above-mentioned step T3 which were extracted at the above-mentioned steps T1 and T2 in order of a file number, and displays to the transceiver file check screen 160 of a format as shows the file name to drawing 16. [0114] In the example of drawing 16, a list indication of the transceiver file candidate between the "\*\*\*\*\*\*\* accountant's offices" which is the adviser point "OOOO, Inc." and the transmission place which are a synchronizing agency is given. Moreover, the priority of transmission and reception is expressed with "transmission" and the notation displayed on the "receiving" column. The priority is

expressed with this example in order of O>O>x. Moreover, a synchronizing agency, when the synchronization place is updated, it is displayed by "OO" or "OO", and it is expressed with "Ox" and "xO" when only one side is updated. Moreover, the direction where the synchronization place is updated [ of the number of data ] in many cases is made into O a synchronizing agency again. Moreover, when the number of data is in agreement, it determines by the renewal time amount of the newest.

[0115] Step T5: (a check or modification of a transceiver file etc.)

When each transceiver file displayed on the transceiver file check screen 160 may be used, a user points at "confirmation-button" 161 currently displayed on the lower column of Screen 160 with a mouse 11, or presses a line feed key. Moreover, make cursor 162 go up and down, it is made to move to the location of the file of relevance to setup-change or cancel, and the setting modification carbon button 163 is pointed at, "Cancel button" 164 are pointed at, or a cancel key is pushed. [0116] When the data input section 10 and the signal from a mouse 11 are investigated and there is the point of "confirmation-button" 161 or depression of a line feed key, a control section 12 extracts the file as which the priority notation is displayed as a transceiver file, and changes to step T6. Moreover, when there is the point of the setting modification carbon button 163, it changes to step T7, and when there is the point of "Cancel button" 164 or depression of a cancel key, it changes to T10.

[0117] Step T6: (file transmitting and receiving processing)

If a check is performed at the above-mentioned step T5, file transmitting and receiving processing will be performed in actuation as shown in <u>drawing 18</u>, and it will change in a process P7. [0118] Step T7: (priority setting modification)

A control section 12 changes Screen 170 for a priority setting change, and displays the data of the line specified with cursor 162 at the above-mentioned step T5 on the data display column 173 while it displays Screen 170 for a priority setting change of the transceiver file of a format as shown in drawing 17.

[0119] Step T8: (setting modification)

a user -- three change patterns "a change of 1 and 2:priority" of the change actuation guidance column 171 -- "-- 3. -- it does not synchronize -- " -- if cursor 171 is moved to one of lines, a control section 12 will display the line number chosen as the acknowledgment indicator column 172, and a check will be urged to it. And if a user presses a line feed key, it will change to step T9. [0120] Step T9: (display of the transceiver file check screen after setting modification) If it changes at the above-mentioned step T8 and a pattern 1 or 2 are chosen, a control section 12 is the indicative data of the reception file check screen 160 displayed by the above-mentioned step T four, and after transposing to the contents which had the contents of the "transmitting" column which shows priority among the data of the line specified with cursor 162 at the above-mentioned step T5, and the "receiving" column specified, a reception file check screen 160 displays and it will change to step T5. Moreover, if it changes at the above-mentioned step T8 and a pattern 3 is chosen, it will change to step T10. In the example of drawing 17, the journalizing file for June is shown in the display column 173 of Screen 170 for a setting change by setting change actuation of step T5 among the files displayed on the transceiver file check screen 160. Moreover, since it changes in this example and the pattern 2 is chosen, if a line feed key is pressed, the transceiver file check screen 160 where the transceiver priority display of the journalizing file for June was changed from "Ox" to "xO" will be displayed (that is, it changes from synchronizing agency priority to synchronization place priority).

[0121] Step T10: (priority cancellation of a transceiver candidate file)

A control section 12 cancels the display of priority transmission of the "transmitting" column currently displayed on the line specified with cursor 162, and the "receiving" column, and is a cancellation notation (for example, as "\*" is displayed on the "transmitting" column and the "receiving" column, since, the reception file check screen 160 is displayed and it changes to step T5.).

[0122] [Transmitting and receiving processing of file]  $\frac{drawing 18}{drawing 18}$  is a flow chart which shows one example of the transmitting-and-receiving-processing actuation of a file processed synchronously, and is equivalent to actuation of step T6 of  $\frac{drawing 13}{drawing 13}$ . In this case, a transmitting agency, since the

updated accounting data may overlap when the file of the pair of a transmission place is updated for both sides, it merges per record (T5-2), and when having updated only by one side of a transmitting agency or a transmission place, it copies per file (T5-14). Step T 5-1: (judgment of priority conditions)

By drawing 18, the control section 12 of a synchronizing agency (accounting equipment 2) The file of the pair of the synchronous origin displayed on the check screen 160 of a transceiver file when "check" actuation is pushed at step T5, and a synchronization place (that is, in the example of drawing 16) it investigates whether it is the file by which both the files of a synchronization place were updated the synchronous origin which has a transceiver file in the same line, and, in the case of the file (the example of drawing 16 -- the file of "OO" or "OO") both updated, changes T5-2. [0123] moreover, the case (the example of drawing 16 -- the file of "Ox" or "xO") (to a case, it changes T5-14 (in this example, the file of x mark means the file which is not updated).) where only one file of a synchronization place is updated the synchronizing agency Moreover, in the case of others (in for example, the case of the file by which both are not updated), the next line of the check screen 160 of a transceiver file is investigated.

[0124] Step T 5-2: (priority judging (1))

A control section 12 investigates which [ of the file of the pair of a synchronization place ] is high (O mark) in a priority a synchronizing agency, and when the direction of the file of a synchronizing agency has a high priority The file identification code of the file and the corresponding file identification code of the file of a synchronization place are acquired, and it changes to T5-3, when that is not right, the file identification code of the file of a synchronization place and the file identification code of the file of corresponding synchronous origin are acquired, and it changes to T5-9.

[0125] Step T 5-3: (record reception of the updated accounting file of a synchronization place) The control section 12 of a synchronizing agency advances the Request to Send of the record of the accounting file updated by the synchronization place (accounting equipment 1) based on the file identification code of the synchronization place acquired by the above-mentioned step T5-2, and receives the record which corresponds from a synchronization place.

[0126] Step T 5-4: (merge application with a synchronizing agency file record)

The control section 12 of a synchronizing agency merges the record received by the above-mentioned step T5-3 per the record of the file of an update file with which a synchronizing agency corresponds, and record. In addition, the record with off overwrite and correction flag is added with the update record of the accounting file which received the record of ON of a correction flag with the record of the update file concerned in the case of merge.

[0127] Step T 5-5: (synchronization place file record termination judging)

A control section 12 will change to T5-6, if the notice of record transmitting termination is received from a synchronization place (accounting equipment 1). When that is not right, it continues this step (T5-5).

[0128] Step T 5-6: (correction flag off processing)

A control section 12 investigates the flag column 48 of each record of the update file which merged the record of a transmission place by the above-mentioned step T5-5, and clears all the correction flags of each record.

[0129] Step T 5-7: (copy of a synchronizing agency file)

A control section 12 transmits the contents of an update file which performed the merge application at the synchronization place by the above-mentioned step T5-10, and memorizes the update file which transmitted to the accounting file to which accounting equipment 1 corresponds.

[0130] Step T 5-8: (existence judging of the next file)

A control section 12 investigates whether the file which is not yet performing transmitting and receiving processing among the display, now the \*\*\*\*\* transceiver file is shown in the check screen 160 of a transceiver file, when there is a file which is not yet performing transmitting and receiving processing, returns to T5-1 and performs the priority condition judging of the next file. Moreover, when that is not right, transmitting and receiving processing is ended and it changes in a process P7.

[0131] Step T 5-9: (transmission of the record of the update file of a synchronizing agency)

A control section 12 reads one record of records at a time from the update file to which it corresponds in each update file by which archival memory is carried out to the update file field 182 based on the file identification code of the synchronous origin acquired by the above-mentioned step T5-2, adds the file identification code of the synchronous origin acquired by the above-mentioned step T5-2, and transmits to the accounting equipment 1 of a synchronization place. In addition, a correction flag skips records other than ON (= "1", "2", or "3") in this case.

[0132] Step T 5-10: (merge application with the record of the accounting file of a synchronization place)

A transmission place merges per the record of the accounting file whose file identification code in the accounting file space (181') of a synchronization place corresponds the update record received from the synchronizing agency, and record. In addition, the record with off overwrite and correction flag is added with the update record which received the record of ON of a correction flag with the record of the accounting file concerned in the case of merge.

[0133] Step T 5-11: (synchronizing agency file record termination judging)

A control section 12 performs the termination judging of the update record read by the above-mentioned step T5-10, and, in termination, changes T5-12. When that is not right, it returns to T5-9 and read-out and transmission of a record are performed.

[0134] Step T 5-12: (correction flag off processing)

The control section 12 of a synchronizing agency takes out the notice of the end of record to a synchronization place. The synchronization place which received the notice of termination investigates the flag column of each record of the accounting file merged by the above-mentioned step T5-4, and clears all the correction flags of each record (= "0").

[0135] Step T 5-13: (copy to the synchronization place of the applicable accounting file of a synchronization place)

The control section 12 of a synchronizing agency advances the Request to Send of the file which performed the merge application to a synchronization place by the above-mentioned step T5-10, if the merged file transmitted from the synchronization place is received, will memorize it to the update file which performed the termination judging by the above-mentioned step T5-11, and will change to T8

[0136] Step T 5-14: (priority judging (2))

It investigates whether a priority of which is [ the control section 12 of a synchronizing agency ] higher between a synchronizing agency and a synchronization place among the files of the pair of a transmitting agency and a transmission place, when the direction of a synchronizing agency has a high priority, it changes to T5-15, and when that is not right, it changes to T5-16.

[0137] Step T 5-15: (transmission of the update file of a synchronizing agency)

The control section 12 of a synchronizing agency makes a corresponding accounting file memorize the update file which read the update file which corresponds from the update file field 182 based on the file identification code of the synchronous origin acquired by the above-mentioned step T5-2, transmitted to the synchronization place, and transmitted to the synchronization place, and if the notice of overwrite termination is received from a synchronization place, it will change to T5-8. [0138] Step T 5-16: (the reception and the copy of an accounting file of a synchronization place) A control section 12 advances the Request to Send of the accounting file which corresponds to a synchronization place based on the file identification code of the synchronization place acquired by the above-mentioned step T5-2, and memorizes the accounting file which received from the synchronization place to the file of corresponding updating.

[0139] In addition, in the above-mentioned example, although it was made to direct synchronous processing by the accounting equipment 2 (computer apparatus 2) side, the accounting equipment 1 (computer apparatus 1) side may also be made to perform synchronous processing of the updated accounting file of accounting equipment 1, the update file of accounting equipment 2, and an accounting file to the timing of the arbitration after correction processing of accounting data (for example, journalizing file each data (= record)) and by the side of accounting equipment 1. moreover, if it constitutes so that the data synchronous directions by the person in charge of an accountant's office may perform activation timing of synchronous processing when it does in this way, the accounting data corrected according to the activity schedule of an accountant's office can be

gathered, and can be synchronized (automatic -- every predetermined period -- or it can be made to synchronize after a data input or data correction processing termination). In this case, the process the inside of the process of drawing 9 and a synchronizing agency judge whether you are an accountant's office to be is established. If a synchronous carbon button is pointed at and synchronous directions are performed after a person in charge displays the input screen of a synchronization place (namely, processing synchronously adviser point) by the accounting equipment 1 side A synchronous processing initiation demand can be given from accounting equipment 1 to a computer apparatus, and it can constitute so that the process (the flow chart of drawing 10, drawing 13, and drawing 18 is included) of drawing 9 mentioned above to the computer apparatus may be performed. Moreover, when the inside of the process of drawing 9 and a synchronizing agency are accountant's offices, you may make it add the actuation (program module) which set aside the synchronization place a synchronizing agency with the flow chart of drawing 10, drawing 13, and drawing 18. Moreover, an update file field is established in accounting equipment 1 (computer apparatus 1), and you may constitute so that the process (the flow chart of drawing 10, drawing 13, and drawing 18 is included) of drawing 9 may be performed as it is.

[0140] Moreover, by having constituted so that a user could change the priority of file transmission and reception by the number of data, or the last modification time amount at the above-mentioned steps T7 and T8 of drawing 13 (setup) Step T5-2 of above-mentioned drawing 18 and T5-14 By the result of a priority setup, the synchronization of the data in a synchronization place and the direction of reception will change a synchronizing agency. (For example, about the file of synchronizing agency priority, if a setting change is made at steps T7 and T8 of drawing 7 at synchronization place priority when there is little number of cases (refer to the priority setting modification screen of drawing 17), usually) Usually, the processing which changes from step T5-2 to T5-3, and merges the record of the file of a synchronization place into the file of a synchronizing agency by T5-4 Step T It will change to the processing which changes to 5-9 and merges the record of the file of a synchronizing agency into the file of a synchronization place by T5-10 (although based also on the configuration of a merge program). the case where the data number of cases decreases -- usually -- a passage T -- the way which performed the merge application of T5-10 rather than it performs the merge application of 5-4 -- processing speed (rate of merge) -- early -- there are many cases. [0141] That is, it is [ or / it merges whether it is merged by the priority (that is, it is determined by the transceiver priority of a file whether the record of the file of whether the record of the file of a synchronizing agency is merged into the file of a synchronization place and a synchronization place is merged into the file of a synchronizing agency between the file of a synchronizing agency and the file of a synchronization place) ]. What is necessary is just to change a priority by modification of a priority according to the amount of data or line speed, since a priority can be changed at steps T7 and T8 of drawing 13 as mentioned above. In addition, although it is constituted so that the change of a priority may be manually performed in the example (drawing 17), you may make it change automatically based on the amount of data or line speed. Moreover, you may make it or or change [ which merges with the amount of data or line speed regardless of a priority only in merge ] automatically whether merge is carried out.

[0142] As mentioned above, although one example of this invention is explained, this invention is not limited to the above-mentioned example, and it cannot be overemphasized that various deformation implementation is possible.

[0143]

[Effect of the Invention] According to the 1st thru/or the data synchronous approach of the 11th invention, a communication network is minded as explanation was given [ above-mentioned ]. Between the 1st computer apparatus and the 2nd computer apparatus in which data transfer is possible The data each other updated uniquely can be synchronized without an exclusive operation (lock) by easy actuation (that is, the data of the 1st computer apparatus and the 2nd computer apparatus are updated mutually, and are made without the relation of the main \*\* (considering that both sides are main) into the data of the same contents).

[0144] Moreover, according to the 2nd, the data synchronous approach of the 4th invention, the 12th, the accounting equipment of the 13th invention, and the accounting system of the 16th invention A communication network is minded. Between the 1st accounting equipment (it installs in an

accountant's office, the head office, etc.), and the 2nd accounting equipment (external accounting equipment; it installs in the adviser point, a branch, etc.) in which data transfer is possible Since it can synchronize by easy actuation, without an exclusive operation the data which both sides updated uniquely An accounting entry of data and the procedure of management can ease sharply in the adviser point, an accountant's office (the head office, branch), etc. (for example, even while correcting in accountant's offices (or head office etc.), a data input can be performed at the adviser points (or branch etc.)).

[0145] Moreover, according to the data synchronous approach of the 5th invention, since the person in charge of the adviser points (or branch etc.) can perform activation initiation directions of synchronous processing manually, the input and correction data which were made before it can be gathered, and can be synchronized with a day with the sufficient convenience of the adviser points (or branch etc.).

[0146] moreover -- according to the data synchronous approach of the 7th invention -- the 1st computer apparatus (an accountant's office --) the head office etc. establishment-side and the 2nd computer apparatus (external accounting equipment; -- the adviser point --) Generating of the duplicate record which may be produced when a file is only added, since it merges in the record unit which constitutes a file when updating by an addition, correction, etc. of data is made by the file of the both sides by the side of installation to a branch etc. of the same kind can be prevented.

[0147] Moreover, since a file is transmitted and received by using the file of the way with much additional data and correction data as the base according to the data synchronous approach of the 8th invention, there is little merge time amount and it ends.

[0148] Moreover, according to the data synchronous approach of the 9th invention, and the accounting equipment of the 14th invention Since the priority of which updating data of adviser point accounting equipment or auditing accounting equipment to employ efficiently can be changed to the accounting data of the auditing accounting equipment of the same class as the accounting data of an adviser drawer back For example, a file can be synchronized after changing [ file / of the moon under inputs (or branch etc.) of the adviser point / journalizing ] priorities, such as auditing accounting equipment priority, about the file of the moon under accounting processing in adviser point accounting equipment priority and accountant's offices (or head office etc.). Therefore, the reinput of the data by the help to whom it was carried out conventionally, the correction, or the synchronous processing by lock control operation became unnecessary.

[0149] Moreover, according to the auditing accounting equipment of the 12th invention, since synchronous directions of data with the accounting data of desired adviser point accounting equipment can be performed by the auditing accounting equipment side, the accounting data corrected according to the activity schedule of the accountant's offices (or head office etc.) which installed auditing accounting equipment can be gathered, and can be synchronized. Moreover, according to the 13th thru/or the accounting equipment of the 15th invention, and the accounting system of the 16th invention, since the synchronous directions by the person in charge of the adviser points (or branch etc.) can perform activation directions initiation of synchronous processing, the input and correction data which were made before it can be gathered, and can be synchronized with a day with the sufficient convenience of the adviser points (or branch etc.).

[0150] Moreover, since the accounting equipment of the 15th invention is equipped with the input screen as which the icon for synchronous directions or the mark was displayed, it can perform synchronous directions easily.

[0151] Moreover, according to the accounting system of the 17th invention, since activation initiation directions of synchronous processing can be performed from an auditing accounting equipment or adviser point accounting equipment side, there is little constraint on system management and it ends.

[Brief Description of the Drawings]

[Drawing 1] It is the outline explanatory view of the accounting system of this invention.
[Drawing 2] It is the block diagram showing the configuration of one example of the computer apparatus (accounting equipment) which constitutes the accounting system of this invention.
[Drawing 3] It is the explanatory view of one example of the field layout of activity memory.
[Drawing 4] It is drawing showing accounting data and one example of a synchronous file.

[Drawing 5] It is drawing showing one example of the accounting data input format displayed on a display screen.

[Drawing 6] It is drawing showing other examples of the accounting data input format displayed on a display screen.

[Drawing 7] It is the flow chart which shows one example of the user actuation at the time of data input processing (user interface).

[Drawing 8] It is the explanatory view showing the data flow at the time of the synchronous processing at the time of using a synchronizing agency as adviser point accounting equipment, and using a synchronization place as auditing accounting equipment.

[Drawing 9] It is a process chart at the time of the synchronous processing at the time of using a synchronizing agency as adviser point accounting equipment, and using a synchronization place as auditing accounting equipment.

[Drawing 10] It is the flow chart which shows one example of synchronization place accounting file decision actuation.

[Drawing 11] It is drawing showing one example of the screen for synchronization place accounting file decision.

[Drawing 12] It is the explanatory view of the update information file-generating approach.

[Drawing 13] It is the flow chart which shows one example of updating (synchronization) actuation of the accounting file by the decision and transmitting and receiving processing of a transceiver file.

[Drawing 14] It is the explanatory view of the synchronous candidate file selection approach.

[Drawing 15] It is the explanatory view of the receiving candidate file selection approach.

[Drawing 16] It is drawing showing one example of a transceiver file check screen.

[Drawing 17] It is drawing showing one example of the priority setting change screen of a transceiver file.

[Drawing 18] It is the flow chart which shows one example of the transmitting-and-receiving-processing actuation of a file processed synchronously.

[Drawing 19] It is the explanatory view of the example of a configuration of the accounting file space of auditing accounting equipment (the 1st computer apparatus).

[Drawing 20] It is drawing showing an example of the accounting system which can apply the synchronous processing approach of the accounting data of this invention.

[Description of Notations]

- 1 1st Computer Apparatus (1st Accounting Equipment)
- 2 2nd Computer Apparatus (2nd Accounting Equipment)
- 3 Communication Network
- 10 Data Input Section (Data Input Means)
- 69 74 Synchronous carbon button (an icon, synchronous directions means)
- 11 Mouse (Synchronous Directions Means)
- 12 Control Section (Update Information File-Generating Means, Synchronous File Decision Means, Accounting Data Synchronousr-Control Means, Priority Selection Decision Means)
- 15 Communications Control Section (Communications Control Means)
- 16 Receive Section (Transceiver Section)
- 17 Synchronizer (Transceiver Section)
- 160 Check Screen of Transceiver File (Transceiver File Decision Means)
- 170 Screen for Priority Change of Transceiver File (Priority Selection Decision Means)
- 181 Accounting File Space (Accounting File Memory Means, 2nd Accounting File Memory Means)
- 181' Accounting file space (1st accounting file memory means)
- 182 Update File Field (Update File Storage Means)
- 121 122 Update information
- 123 Update Information File

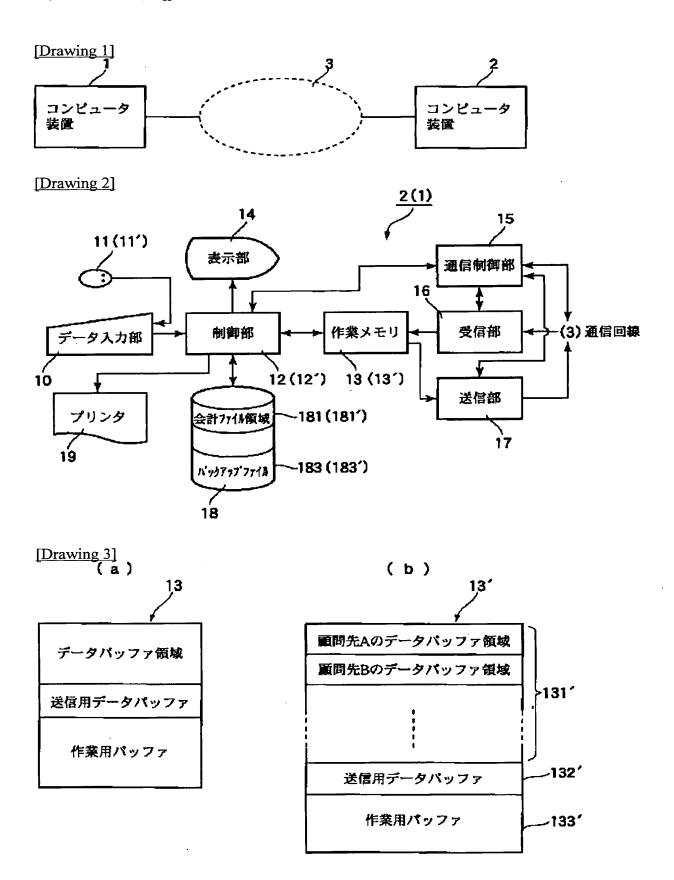
[Procedure amendment 2]

[Document to be Amended] DRAWINGS

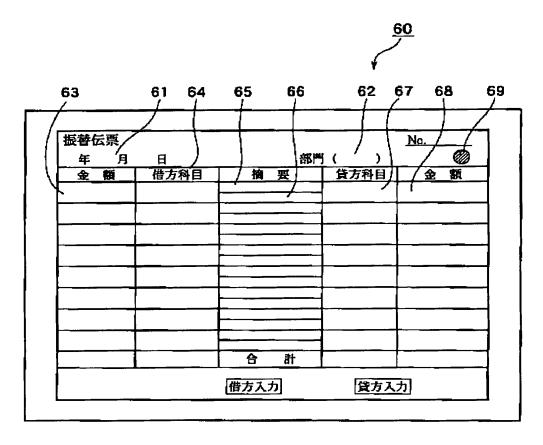
[Item(s) to be Amended] Complete diagram

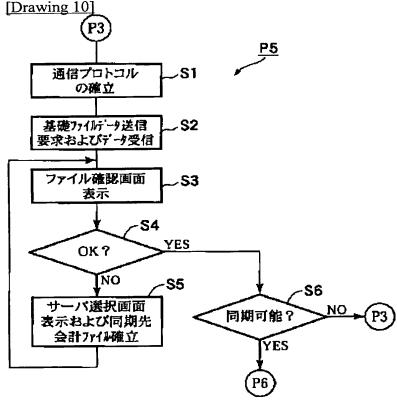
[Method of Amendment] Modification

[Proposed Amendment]

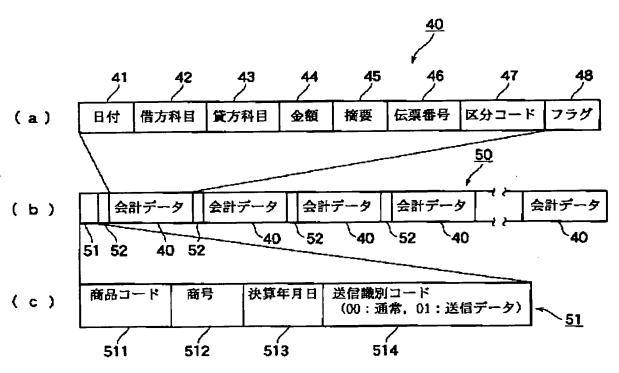


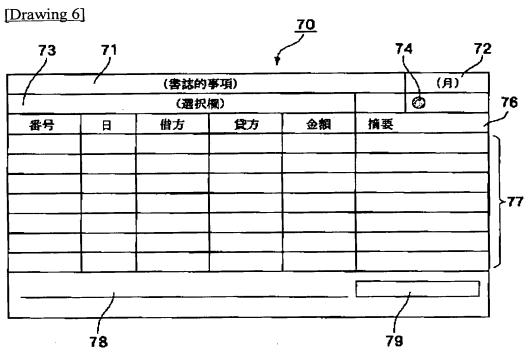
[Drawing 5]



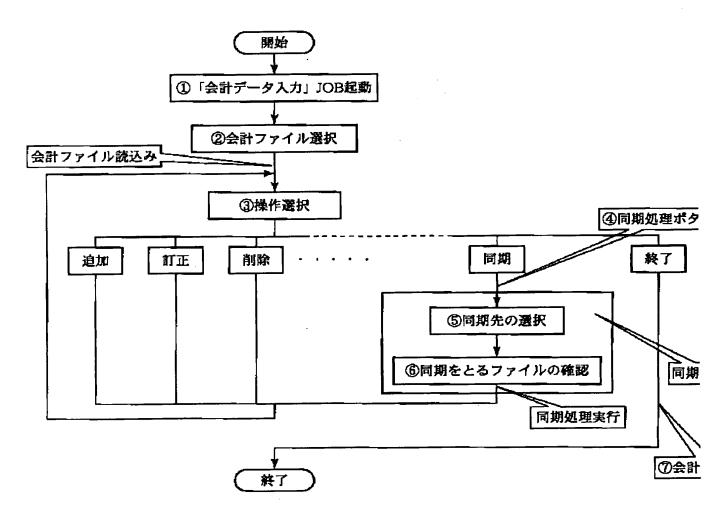


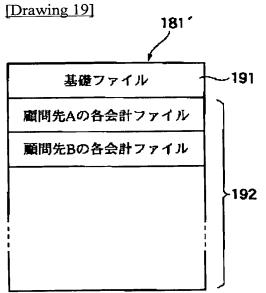
[Drawing 4]



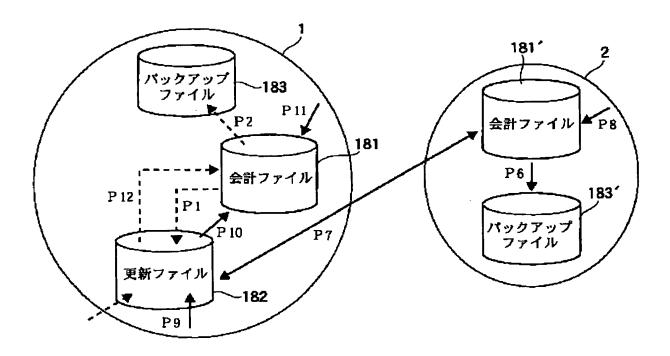


[Drawing 7]

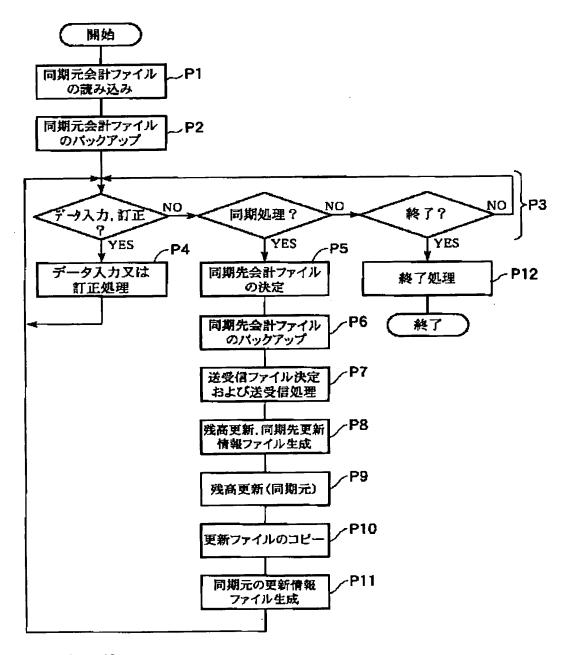




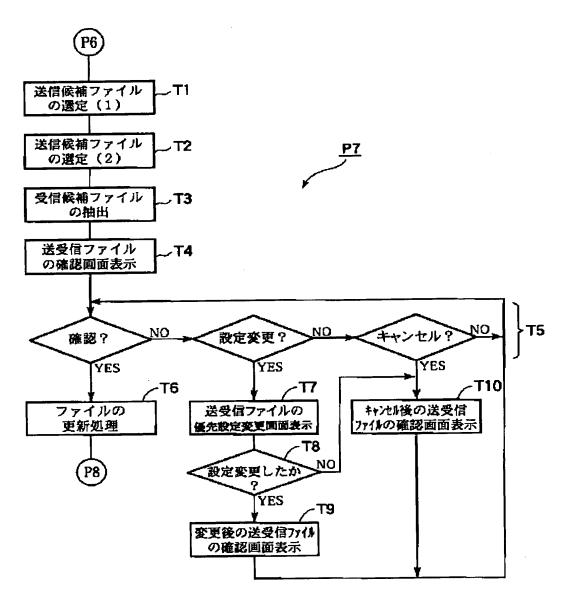
[Drawing 8]



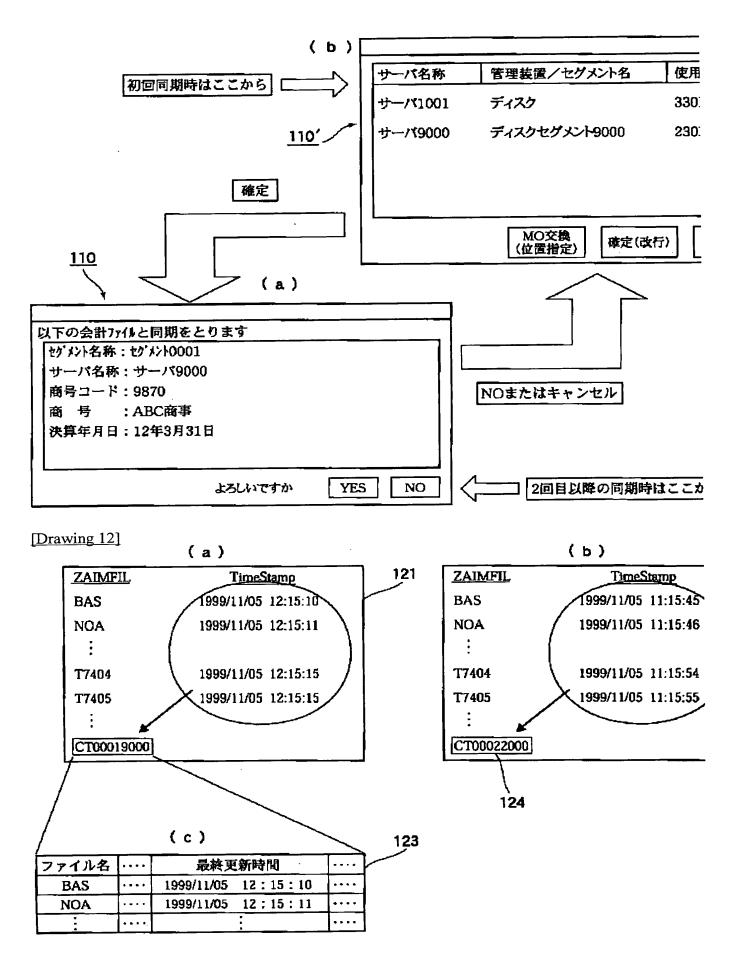
[Drawing 9]

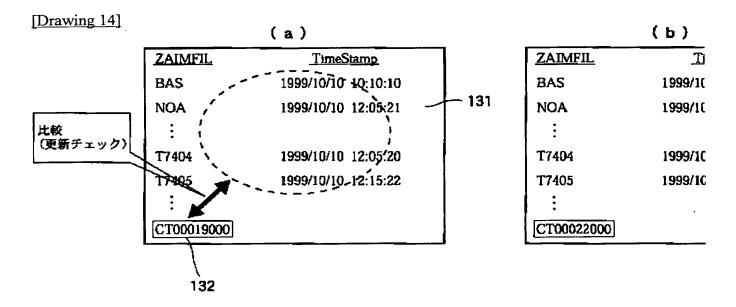


[Drawing 13]



[Drawing 11]

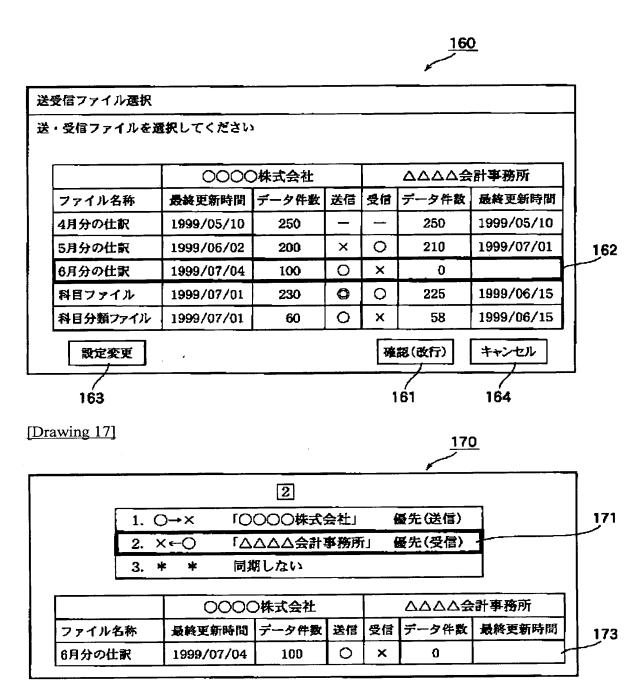




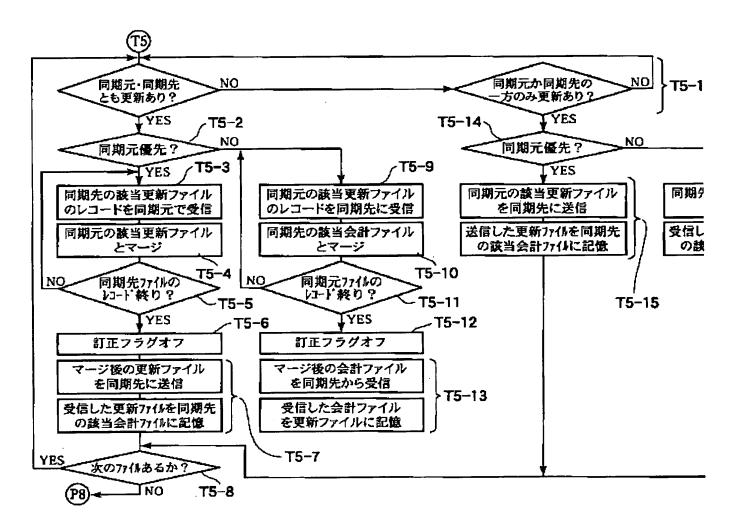
[Drawing 15]

(a)		(b)		
DTINWORK	<u>TimeStamp</u>	ZAIMFIL	TimeStamp	
BAS	1999/10/10 10:10:10	BAS	1999/10/13~16:10:10	
NOA	1999/10/10 12:05:20	NOA ,	1999/10/13 15:50:10	
:		: '	ì	
T7404	1999/10/10 12:05:20	T7404	1999/10/13 15:50:10	
T7405	1999/10/10 12:15:22	T7405	1999/10/13 15:50:15	
:			~ <u></u>	
CT00019000		CT00022000		
			比較(更新チェック)	
		\ 1 <b>32</b>	メル・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	

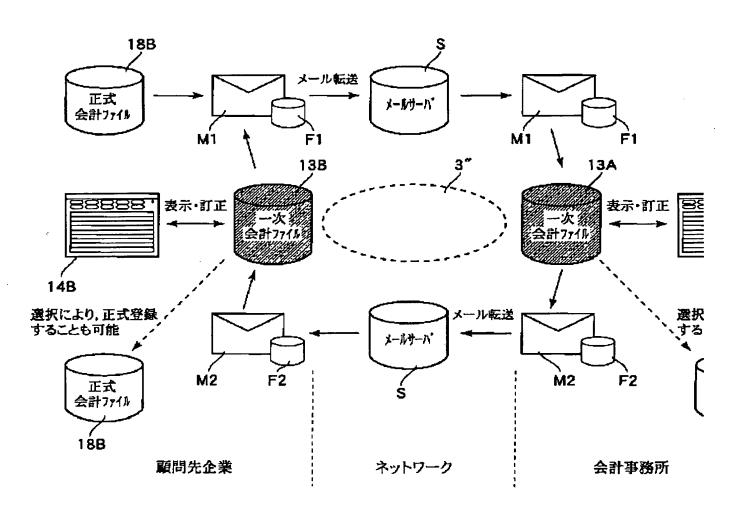
[Drawing 16]



[Drawing 18]



[Drawing 20]



[Translation done.]